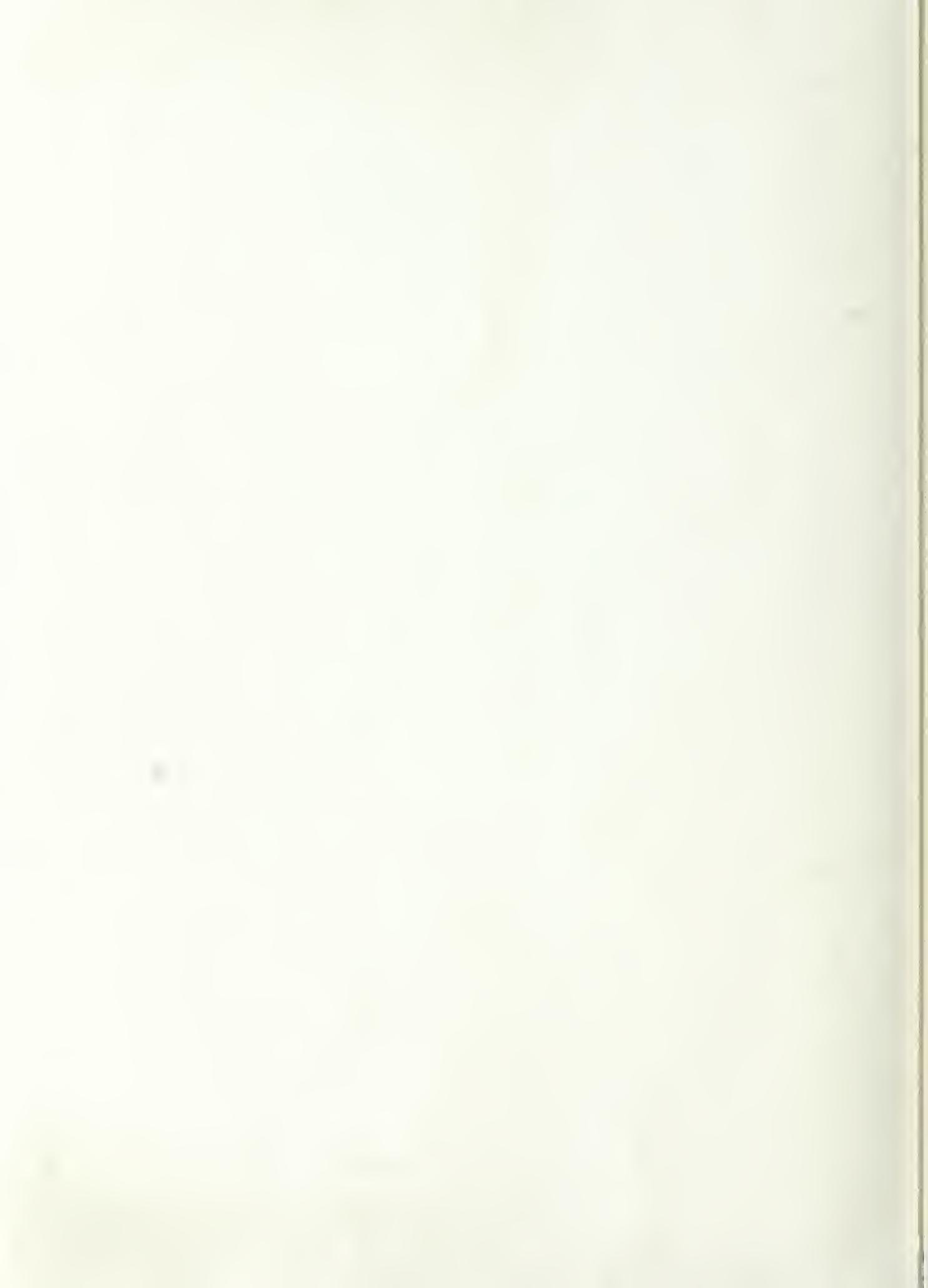




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No. 2304.

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MARCH 22, 1924.

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Vol. C.



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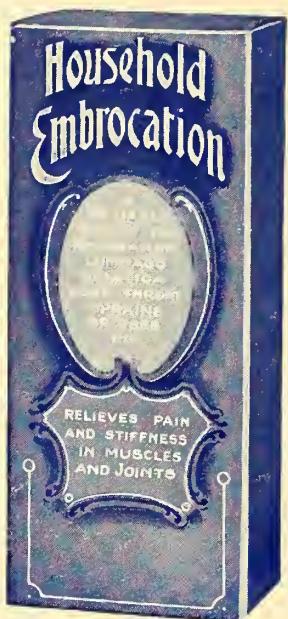
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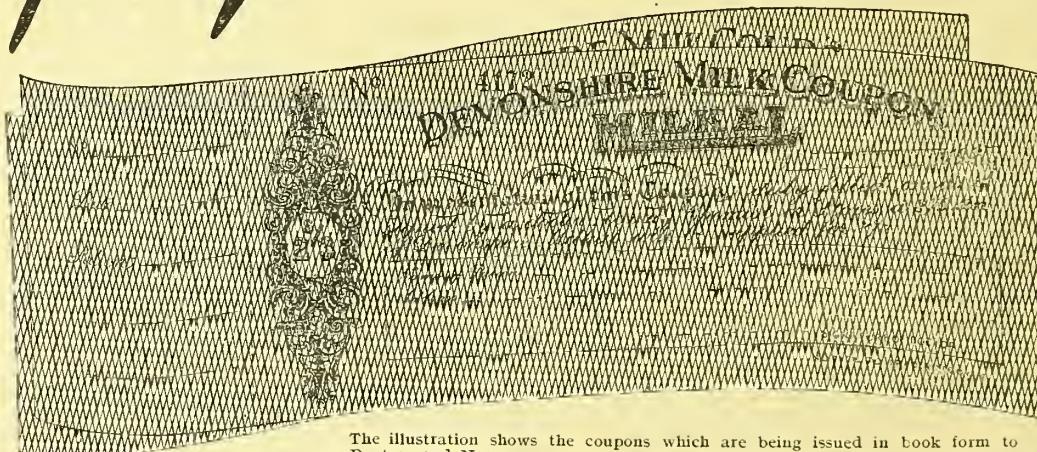
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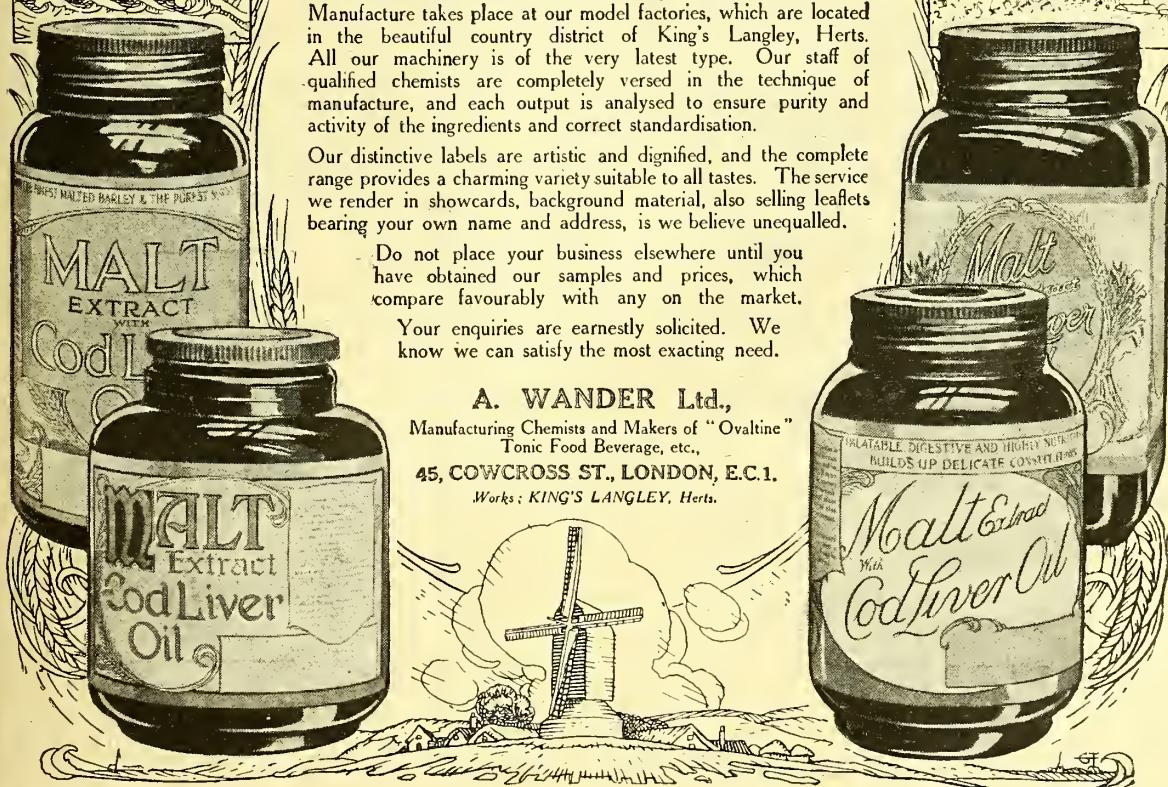
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<b>EXTRACTS, POWDERED</b>		X
<b>RESINS</b>	X	X
<b>TINCTURES</b>	X	X
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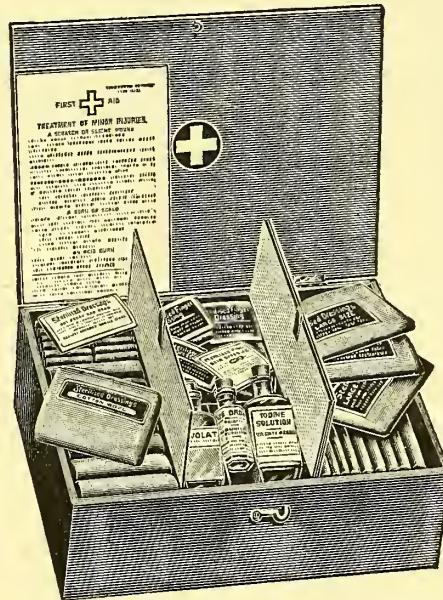
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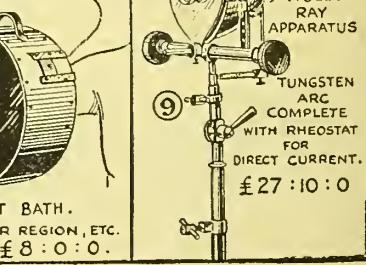
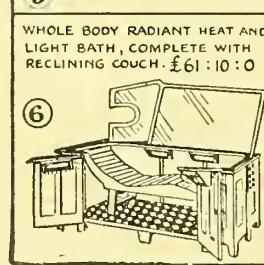
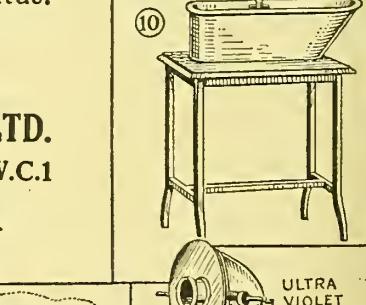
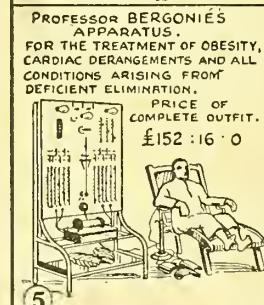
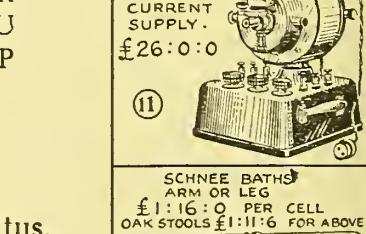
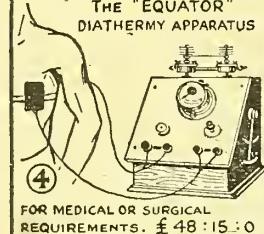
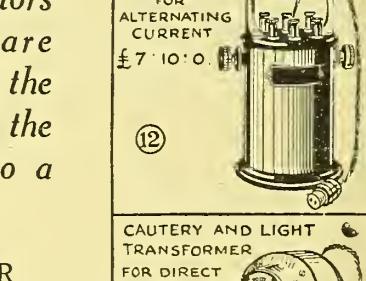
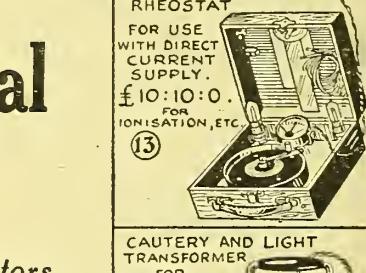
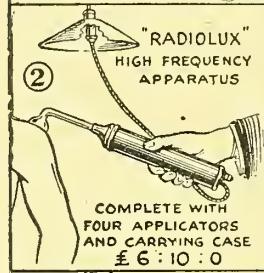
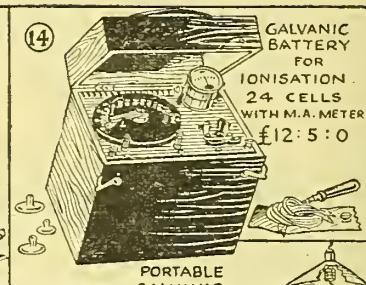
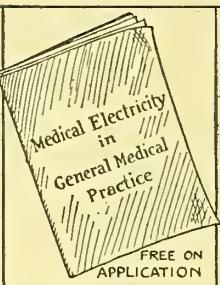
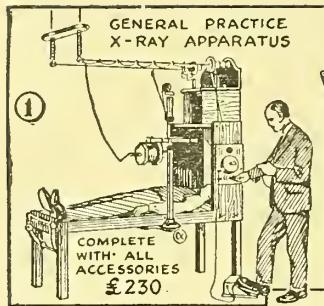


Made in 4 sizes.

**Prices: from 17/- to 58/- each**

*Write for full particulars and special terms*

**WILLIAM TOOGOOD LTD**  
77 SOUTHWARK ST LONDON SE1



## Electro Medical Apparatus

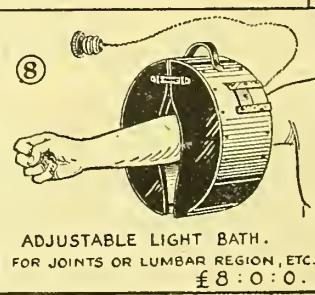
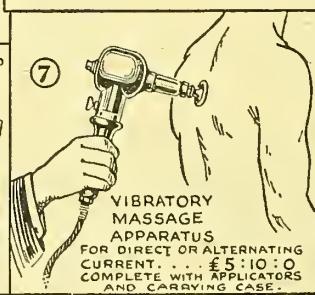
Enquiries, both from Doctors and private individuals, are increasing. The Chemist is the appropriate person to handle the business. Do not let it go to a rival.

WHATEVER YOU ARE ASKED FOR  
WRITE TO US. WE CAN GIVE YOU  
HIGHEST GRADE WORKMANSHIP  
AT COMPETITIVE FIGURES.

X-Ray Apparatus.  
Radiant Heat & Light Apparatus.  
Galvanic Batteries, etc.

**MEDICAL SUPPLY ASSOCN. LTD.**  
167-185 Gray's Inn Road, London, W.C.1

We invite you to visit our Showrooms.





# "Rhodia"

Brand

PHARMACEUTICAL AND  
PHOTOGRAPHIC PRODUCTS

*Manufactured by*  
LA SOCIÉTÉ CHIMIQUE DES USINES DU RHÔNE.  
PARIS.

Acid Acetyl-salicyl (*Powder & Crystal*)

Acid Salicylic (*Powder & Crystal*)

Amidopyrazoline

Diamidophenol Hydrochlor

Guaiacol Carbonate

Guaiacol Crystals

Guaiacol Liquid

Hydroquinone

Methyl Salicylate

Paramidophenol Hydrochlor

Salol

Sodium Hyposulphite (*Prismatic Crystal*)

Phenacetin

Sodium Salicylate (*Powder & Crystal*)

Piperazine

Sodium Sulphite (*Anhydrous*)

Pyrazoline (*Phenazone*)

Vanillin

Pyrazoline Salicylate

Resorcin (*Medicinal & Technical*)

**ENQUIRIES SOLICITED FOR  
SPOT OR FORWARD  
DELIVERY**

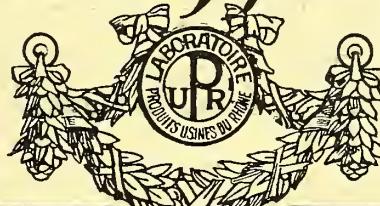
Rhodol (*Equivalent to Metol*)

# R.W.Greeff & Co, Ltd.

**HEAD OFFICE:**

THAMES HOUSE,  
QUEEN ST. PLACE,  
LONDON, E.C.4

T.N. CITY 6550 (8LINES)  
TEL. ADD. GREEFF, LONDON.



**BRANCH OFFICE:**

PALATINE BANK BUILDINGS:  
10 NORFOLK ST.,  
MANCHESTER.

T.N. CITY 5706-5707  
TEL. ADD. GREEFF, MANCHESTER.

# Something Better

**COST 5d.**



**RETAIL 9d.**

P.A.T.A.

Actual size of tin. Colour scheme : White, Green and Red.

*The Public are tired of old-fashioned corn remedies because they have found so many to be unsatisfactory.*

## CARNATION CORN CAPS

**are out of the ordinary**

*They are just the line to help maintain that close personal touch with the customer which is the most valuable asset to the Pharmacist.*

**SPECIAL SHOWCARDS AND ARTIFICIAL FLOWERS FOR WINDOW DECORATION.**

1 doz. ; supplied on Showcard. 3 doz. ; Counter Box and half display.  
6 doz. ; full display material. 1 gross ; full display and Bonus of 1 doz.

*A sample dozen with show matter posted on receipt of 5/-*

*Cuxson, Gerrard & Co. Ltd.*  
*Oldbury, near Birmingham*

# Maw's Page



## Valuable Space

Do you realise how valuable your counter and window space is? Your pharmacy is full of prominent advertising positions—positions which are yours to make the best of. 50% of the pedestrians who pass your window either stop to look or glance in passing. 100% of the customers who purchase at your counter must notice at least one of the articles you are showing thereon. All these people are potential buyers of the goods you display. The vital question is—are you displaying the right sort of goods? Are you showing goods which mean a constant stream of repeat orders for yourself? In other words, do you constantly try to sell goods which are sold by pharmacists only?

Sometimes, of course, you have to sell articles which will benefit other retailers than yourself, but where possible it is surely best to concentrate on goods which will benefit yourself and pharmacy generally.

Take brushes, for instance. Why push other brushes when, by selling a "Meritor," you score for pharmacists? Take "Parex" also. The wide range of "Parex" toilet necessities has many competitors, but it pays you to push "Parex."

Use the advertising space in your pharmacy to the best advantage. You must not only advertise your goods, but you must advertise pharmacy. Maw's sell nothing to retailers who are not pharmacists.

S. Maw, Son & Sons, Ltd.,

Aldersgate St., London,

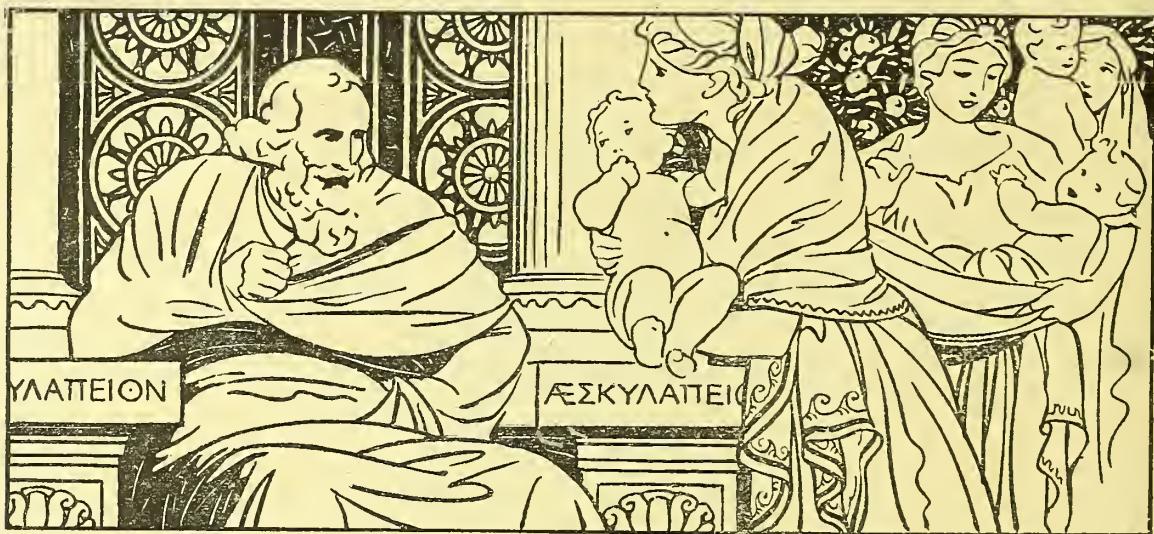
and Barnet.



Telephone:  
**City 7**  
Private  
Branch  
Exchange

Telegrams:  
**Eleven**  
**Cent**  
London

Cables: **Codex**  
**Eleven**  
London  
A.B.C.  
4<sup>th</sup> & 5<sup>th</sup>  
Edition



## Doctors are prescribing Trufood

Humanised Trufood is the closest approximation to breast milk hitherto put forward, as the following analyses clearly show:—

	Breast Milk %	Cow's Milk %	Humanised Tru'ood %
Lactose	6.5	4.7	6.3
Fat	3.3	3.5	3.3
Casein	0.9	3.0	0.8
Lactalbumen	0.4	0.3	0.6
Salts	0.2	0.8	0.6
Water	88.7	87.7	88.4

Close as is the resemblance revealed by the above figures, the analogy to breast milk is even closer, since Humanised Trufood contains active enzymes and vitamins. The presence of the ferments, amylase, lipase, peroxydase, etc., can be readily demonstrated.

### Exclusively a Chemist's Line

The keynote of the Trufood trading policy is to direct every sale through the chemist.

No other channel of supply is open to the public. A trained staff of qualified pharmaceutical chemists are constantly calling upon the Medical and Nursing Professions and their calls are followed by exhaustive circularisation, sampling, etc.

**We count upon you to support our efforts to create goodwill between yourselves and the buying public.**

You are certain to be asked for Trufood, and should keep at least a minimum supply to meet inquiries. If you are not stocking, write to-day for samples and special trade offer.

# TRUFOOD

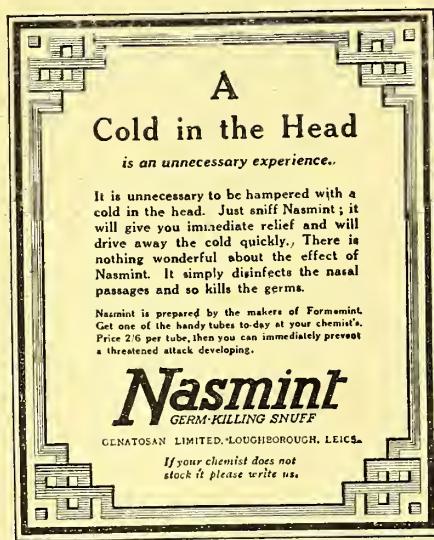
THE ONLY SCIENTIFIC ALTERNATIVE  
FOR BREAST FEEDING



TRUFOOD LTD., THE CREAMERIES, WRENbury, nr. NANTWICH, CHESHIRE

# Over 5,000,000 People will see these Nasmint advertisements every week

THIS means  
big business for YOU.  
Don't turn away  
customers by  
being "out of  
stock." Place  
your order now!  
Nasmint carries  
a handsome  
margin of profit  
for retailers.



NASMINT is retailed at 2/6 per tube. The price to you is 23/- per doz. If Nasmint forms part of a £5 mixed cash order placed direct with us, 10% advertising discount is allowed.

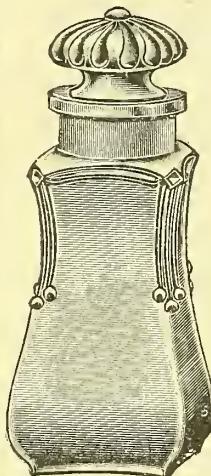


Sole Manufacturers:—

GENATOSAN, LIMITED, LOUGHBOROUGH, LEICESTERSHIRE.

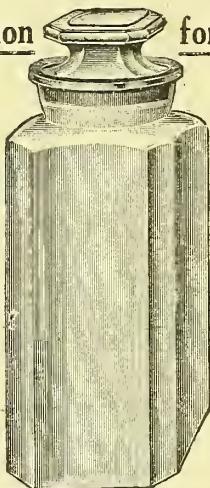
# ATTRACTIVE BATH SALT CONTAINERS

A Smart Suggestion for a Profitable line

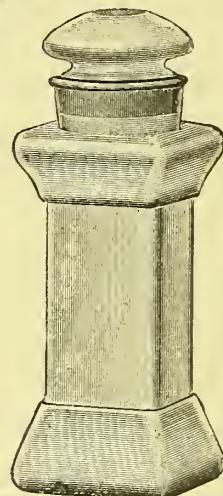


We have designed a variety of attractive Glass Containers for Bath Salts, 3 designs of which are illustrated here.

NEARLY 15,000 CASES OF GLASSWARE OF EVERY CONCEIVABLE DESCRIPTION IN STOCK.



These Containers are being offered at a very low price, and will pay for themselves many times over in increased Sales.



Send to-day for our Illustrated List.

# JULES LANG & SON

(Opposite Agricultural Hall.)

Telephone—  
North 2770-2 (3 lines).

*The Glass Specialists*  
CHARLTON PLACE  
ISLINGTON LONDON N.I.

Telegrams—  
"Assorted," "Phone,  
London."  
Codes—ABC 5th Edition,  
Scott's 10th Edition, 1906  
and Bentley's Complete  
Phrase Code.

# ALUMINIUM OINTMENT BOXES

Fill the gap between the chip box and the porcelain pot. Try an assorted dozen. You will find them just what you want.

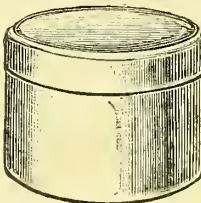
## REDUCTION IN PRICES

PRICES (either shape, tall or flat):

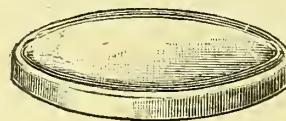
Per gross:  $\frac{1}{4}$  oz. 9/-  
"  $\frac{1}{2}$  oz. 12/-  
" 1 oz. 16/6  
" 2 oz. 27/-



$\frac{1}{2}$  oz.



1 oz. TALL.



FLAT SHAPE NESTED.

$\frac{1}{4}$  oz.  $\frac{1}{2}$  oz. 1 oz. 2 oz.

(The 2 oz. tall shape is similar to the 1 oz. size but twice the height.)

Chemists everywhere are taking up the use of these for their preparations. Their light weight as compared with porcelain pots makes for much saving in regard to carriage, the nested ones being specially suited for export.

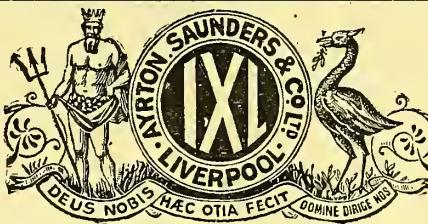
For large contracts special rates will be quoted.

CARRIAGE PAID ON ORDERS OF £3 AND UPWARDS.

A discount of 5% for prompt cash is allowed on all amounts of 10/- and upwards. Money returned if goods are not satisfactory. Write for New Price Lists of Druggists' Sundries, Toilet Requisites, Rubber Goods, Cut Sheet Rubber Appliances, etc.

**BURGE, WARREN & RIDGLEY, LTD.**

91 & 92 GREAT SAFFRON HILL,  
LONDON, E.C.1



A good turnout makes a good turnover

# AYRTON OVALS

sell the Goods.

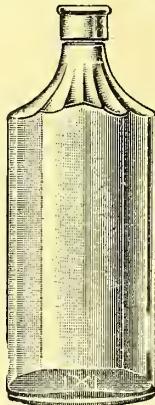
CORRECT IN  
CORKAGE  
CAPACITY AND  
WEIGHT

Exceptionally strong, due  
to superior glass dis-  
tribution and scientific  
annealing.

Every description of bottle  
useful to the Chemist.

A pure white flint bo'te of distinctive design.  
Prices for original crates:

1 oz.	13/9	6 oz.	21/6
—	—	8 oz.	23/-
2 oz.	15/6	10 oz.	27/6
—	—	12 oz.	31/3
3 oz.	18/-	16 oz.	35/-
—	—	—	—
4 oz.	20/-	—	—



PACKING & CRATES  
FREE — carriage paid  
from Works to any Rail-  
way Station in England,  
Scotland or Wales within  
the Liverpool rate. Irish  
orders, carriage forward  
from Liverpool.

1 oz. in 10-gross crates  
2, 3 & 4 oz. in 6-gross crates  
6, 8 & 10 oz. in 3 " "  
12 oz. in 2½ " "  
16 oz. in 1½ (approx), "  
Assorted crates (equivalent to  
6-gross 4 oz. size) at original  
crate prices.

Special quotations for export.

## AYRTON'S CORKS

keep the goods in the bottle

	Per Gross	Per Gross	
N.S. for 6 and 8 oz., cheap for Insurance Scripts	8½d.	Cordova XX, same size as Cordova, but superior quality 1/8	
Madrid for 1 and 2 dr. and ½ oz. vials	10½d.	Cadiz for 10, 12 and 16 oz. bottles	1/4
Madrid XX, same size as Madrid, but superior quality	1/2	Cadiz XX, same size as Cadiz, but superior quality	1/9
Faro, for 1, 1½, 2 and 3 oz. bottles	11d.	Special for 8, 10 and 12 oz. bottles	2/-
Faro XX, same size as Faro, but superior quality	1/3	Lugo for 20, 30 and 40 oz. bottles	2/-
Braga long tapering for 1, 1½, 2 and 3 oz. bottles	1/-	Velvet Vials, hand cut, for 2, 3 and 4 oz. vials	1/9
Braga XX, same size as Braga, but superior quality	1/4	Velvet Dispensing, hand cut, for 6, 8 & 10 oz. bottles	2/-
Lisbon, for 3, 4, 6 and 8 oz. bottles	1/-	Ginger Beers XX	1/-
Lisbon XX, same size as Lisbon, but superior quality	1/4	Ginger Beers XXX	1/3
Cordova for 6 and 8 oz. bottles	1/4	Emulsions for W.M. Emulsions	3/3

## Leatherboard Stock Boxes

No. 1. Containing 15 gross assorted Madrid, Faro, Braga, Lisbon, Cadiz ... 15/6 | No. 2. Containing 12 gross assorted Faro, Lisbon and Cadiz ... 12/6

Sample box for ordering purposes containing about 3 gross, 3/6

**AYRTON, SAUNDERS & CO., LTD.**  
Manufacturing Chemists, LIVERPOOL, England

# ALL-SOLUBLE GOLD SEAL SUPER FLAVOURINGS

GINGER JAMAICA  
GINGER WINE  
DRY GINGER ALE,  
"Kenilworth"  
GINGER ALE, "Belfast"  
LEMONS GREEN  
LEMONS TRIPLE  
LIME JUICE & SODA  
ORANGE SWEET  
ORANGE BITTER  
BLACK CURRANT  
PORT FLAVOUR  
CAPSICUM  
CLOUDY STONE GINGER  
BEER  
AND OTHERS

*None equal for Flavour,  
Solubility, and Concentration*

## Below Present Current Trade Rates

All-Soluble Essences supplied in Bond for Export.

WRITE FOR SAMPLES AND PRICES

# Clayton & Jowett LIMITED.

*Essence Distillers,  
Food Colour Specialists*

**LIVERPOOL**

*Managing Director : J. W. CLAYTON, Ph.C., F.C.S.*  
ESTABLISHED 1845

**SOLE AGENTS for CHINA and SOUTH AFRICA—**  
**AYRTON, SAUNDERS & CO. LTD.**  
LIVERPOOL

Make this a "Natural" year  
and place your Season's order now for

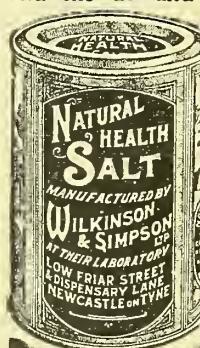
# NATURAL HEALTH SALT.

*The Original Health Salt of the World*

You can make it a leading line—it is a ready seller, and the demand grows day by day. The price is popular with the public—the quality is right—and the profit is good.

"Natural" Health Salt was the first in the market, and is still first favourite in thousands of homes throughout the country.

*It is the Natural Way to Health.*



**Wilkinson & Simpson Ltd.  
NEWCASTLE-UPON-TYNE.**

We invite applications for our

## "SPRING and SUMMER" LIST

which includes prices for the following :—

### MASON'S EXTRACT of HERBS

CLARK'S LIVER SALT  
HEALTH SALT  
MALT & HOP PACKETS  
LEMON POWDER  
MAGNES. CIT. GRAN.  
etc. etc.

### NEWBALL & MASON NOTTINGHAM.

*"Good! it's Mason's!"*



## The 1924 Outer

for "Mineral Spring" is as big an advance on previous designs as the new bottle and carton pack is an improvement on the old tin. Cut out of stout straw-board and printed in seven colours, it makes a bold and arresting addition to the "Mineral Spring" display material.

"Mineral Spring" is now sold in distinctive glass jars packed in handsome cartons, without any alteration in quality, quantity, price, profit (33% to 40% on selling price), colour scheme, or sales policy. "Mineral Spring" is more than ever "The Chemists' Own Effervescent."

1/- bottles, 8/- dozen (5 grs. orders 7/6 doz.) P.A.T.A. 2/- size in active preparation.

THOMAS KERFOOT & CO LTD  
BARDSEY VALE, LANCASHIRE,  
& Bardsley House, London, N.1  
ESTABLISHED 1797.

A/218

Season—1924



# COD LIVER OIL

GUARANTEED GENUINE. FINEST PURE LOFOTEN.

Manufacturers:

BRÖDR. AARSÆTHER A/S, Aalesund, Norway.  
LARGEST MANUFACTURERS OF COD LIVER OIL IN NORWAY.

Stocks always held in London.

In 25-gallon tin-lined barrels.

SOLE AGENTS  
FOR U.K.: FREUDENTHEIL, SMITH & CO.

21 Mincing Lane, LONDON, E.C.3.

Tel. Add.: "FREUDENRUF."

Codes used: A B C, 4th and 5th Edit.; and Private.

Tel.: 12513 CENTRAL.

QUALITY MAKERS of

## Malt Ext. and

All packings.

## Malt & Oil

C. Tolkien &amp; Co. Factory &amp; Maltings — Apollo Works, Blackburn.

Established 1886.

Offices &amp; Warehouse—Commercial Mills,

BELFAST—31 Antrim Road.

## OPPENHEIMER, SON & CO. LIMITED

announce that

They are now circularising the Medical Profession on

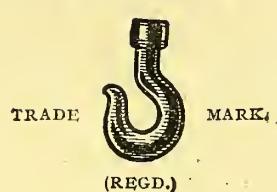
## VALDÉ'S LIQUID MEAT

RETAIL PRICE—4/6

Terms and Particulars on application



OPPENHEIMER, SON &amp; CO. LTD., 179 Queen Victoria Street, London, E.C.4.



## A Pyramid of Hooker's Cartons

neatly arranged in your window or on your counter will bring good business.

The Proprietors are committed to very extensive advertising in order to introduce Hooker's Malted Milk to a much wider circle of consumers, but the new demand thus created will be a source of profit to you only if you stock HOOKER'S and of *greatest* profit if you display it prominently.

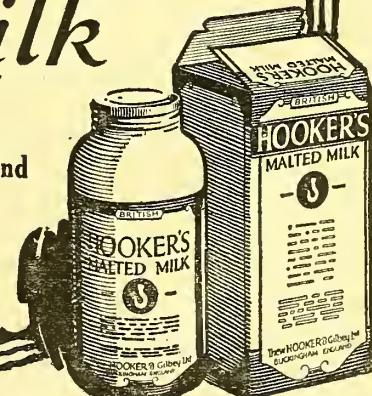
Good advertising and a good article together make HOOKER'S a line that will sell continuously in ever-increasing quantities. Any enterprising chemist should experience no difficulty in selling a dozen bottles a day, which means a very welcome addition to weekly profits.

Why, then, delay? Only by co-operating with us to our mutual profit can you derive the fullest possible benefits from our efforts. It is clearly in your own interests to give HOOKER'S a prominent position in your window or shop.

# HOOKER'S Malted Milk

*Write for prices and terms to*

**Thew, HOOKER & Gilbey Ltd., Buckingham, England**



## Trade Report — Tablets.

Please note the following alterations in prices:—

		Per Doz. Bots.	Per		
		25's.	50's.	100's.	1000
<b>AMMONIATED QUININE, 1/2 DRAM.</b>	WHITE OR RED, S.C.	4/6	7/-	11/-	6/6
“	1 DRAM. OR C.C.	5/9	9/-	15/6	10/-
<b>ASPIRIN, 5 GR.</b>		3/9	6/-	9/-	4/3
<b>CASCARA SAGRADA EXT., 2 GR.</b>	PLAIN, S.C. OR C.C.	3/6	5/-	7/9	3/6
<b>PHENACETIN, 5 GR.</b>		5/6	9/-	15/-	9/6
<b>PHENACETIN, 4 GR. CAFFEINE CIT. 1 GR.</b>		5/9	9/6	16/-	10/6
<b>VEGETABLE LAXATIVE, S.C.</b>		4/9	7/3	12/-	7/-

3d. per dozen less on gross quantities.

H. & T. KIRBY & Co., Ltd.,  
Newman House, Willesden Green, London, N.W. 2.

## PURE ORANGE WINE A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.) Prepared in strict accordance with the Formula of the British Pharmacopoeia. (Wholesale only)  
Samples from Head Office, Thomas Street, DUBLIN, or London Office, 74 Great Tower Street, LONDON, E.C. 3.

Cater for Diabetics by selling  
Real French **Gluten Bread** Brusson Jeune  
Gluten Flour, Macaroni, Vermicelli, Semolina, &c.  
Showcards and Window Bills Free. Usual Wholesalers, or write—  
O. WELLS, 1 Manor Rd., Brockley, London, S.E.4

**REAL SILVER LEAF**  
As supplied for many years to the leading Houses for Pills, Cachous, &c.  
We also supply  
**GOLD LEAF AND GOLD POWDERS**  
WHOLESALE ONLY

E. WINTER & CO., LTD.  
Head Office: 64 Cheapside, London, E.C.2. Telephone: Central 985

## Reduction of Prices

### Important Note to Chemists without Licenses

It has been established by law that Registered Chemists may sell Wincarnis with Quinine without a License.

**WINCARNIS**

Sells readily ALL  
the time.

COLEMAN & CO., Ltd., Wincarnis Works, Norwich.

New Prices to  
the Public:

Large Size **5/-**

Small Size **3/-**

## NEW STOCK FOR OLD



THE GREAT NERVE FOOD AND FLESH BUILDER

EVERY chemist holding stocks of IRVONA of the obsolete 3/- and 15/- sizes should return them to us, when they will be immediately exchanged for the NEW SIZES at equivalent value.

### NOTE REVISED PRICES

1/3 size IRVONA	Trade Price	12/- per doz.
5/- "	"	48/- "
12/- "	"	115/- "

*Another line rapidly growing in popularity:—*

“IRVOLAX” (the safe aperient).

1/3 size ..	..	12/- per doz.
3/- .. (four times the quantity)	..	27/- ..

*Obtainable through the usual wholesale houses, or direct if cash sent with order.*

**P. J. WILLIAMS**  
27 Finsbury Street LONDON, E.C.2

**Dr. DE JONGH'S**  
LIGHT BROWN  
**COD LIVER OIL**  
IN IMPERIAL HALF-PINTS. 4/-

**ANSAR, HARFORD & CO., LTD.**  
182 Gray's Inn Road - - LONDON  
SOLE CONSIGNEES.

## ENERGEN DIABETIC BREAD.

### NOTICE TO RETAIL CHEMISTS.

All chemists have heard of ENERGEN BREAD in connection with the dietetic treatment of Diabetes, Obesity, Indigestion, etc., but those who have not handled this profitable line may not be aware that it is specially prepared and put up for the retail trade, and that owing to the special process of starch-reduction it will keep unchanged in flavour and consistency for an indefinite period.

If chemists who receive enquiries for Energen Bread will wire us, we will send a box post free by return, with special printed matter for the patient's doctor, list of wholesalers stocking Energen Products, catalogue, etc.

We trust that this increased facility for placing initial orders may lead to an extension of our business with retail chemists.

**THERAPEUTIC FOODS CO.**  
ENERGEN WORKS (Dept. C.D. 3), Bridge Rd., Willesden, N.W.10

## NESTLÉ'S MILo FOOD

is being largely advertised in the National Home Papers read by millions throughout the country.

## With Fifty Years' Reputation

behind it, the regular demand of half-a-century for this renowned Infants' and Invalids' food is bound to increase with this publicity.

*Trade prices from all  
Wholesale Chemists or*

**NESTLÉ'S**  
6-8, Eastcheap, London, E.C.3

# *List of prize winners of Nildé window display competition*

<b>1st prize £30</b>	H. ROWE, 141, Exeter Street, Plymouth.
<b>2nd prize £20</b>	Messrs. BENNISONS, LTD. 8, Cale Street, Chelsea.
<b>3rd prize £10</b>	F. W. GOODESS, 25, Market Street, Leicester.
<b>4th prize £10</b>	G. E. MARFITT, Infirmary Square, Leicester,
<b>Six prizes each £5</b>	F. J. Fitzpatrick, 39, Stoney Batter, Dublin. John Brown, 71, Cumberland Street, Glasgow. C. E. Marriott, 203, Kirkstall Lane, Headingley, Leeds. F. G. Thompson, 15, Silver Street, Wellingboro'. W. J. Honour, 48, Wharf Street, Sowerby Bridge, Yorks. Dobbin & Co., 65, North Street, Belfast.
<b>Fifteen prizes each £2</b>	W. T. Thomas, Old Bank Pharmacy, Llanelly. W. M. & M. Sawney, Town Hall Buildings, Westgate-on-Sea. P. Jeyes & Co., Ltd., 6, Drapery, Northampton. F. W. Steele, 3, Queen Street, Ripon. A. E. Gaunt, 157, Evington Road, Leicester. W. J. Fisk, 186, Above Bar, Southampton. V. W. Huckle, The Parade, Wellingboro'. E. Winstanley, 27, Topsfield Parade, Crouch End. R. M. Graham Dobson, 566, Rochdale Road, Manchester. Price Bros., Central Drug Stores, Church Street, Abertillery. A. J. Cahill, 82a, Lower Dorset Street, Dublin. Mayer Bros., 123, Beulah Road, Thornton Heath, Surrey. Watts & Co., 114, Church Road, Hove. W. Walker, 4, Lombard Street, Newark-on-Trent. W. H. Harrison, 35, Wilbraham Road, Chorlton-cum-Hardy, Manchester.

*Sole Agents:*

**NILDÉ (Paris) AGENCY LTD.,**  
**296, Regent Street,**  
**London, W.1**

*'Phone : Mayfair 5282.*

# Poudre Nildé

## in the sifter box

One of the quickest sellers in your shop, and consequently one of the most profitable, is Poudre Nildé. Week in and week out the sales increase. Someone is getting new customers. Is it you?

Our advertising can only go half-way towards making new customers. The other half rests with you, and with your windows and counter.

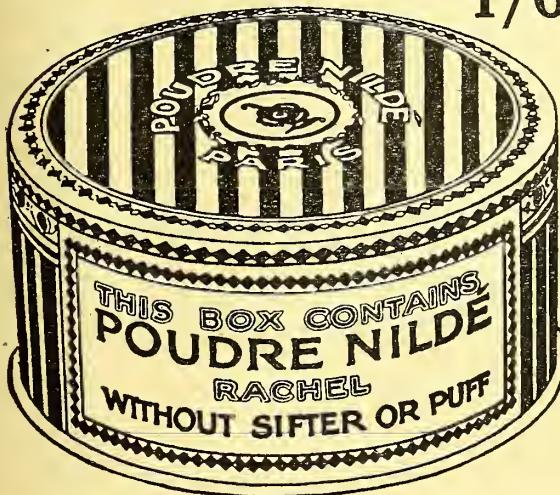
We shall help each other considerably if you will link up with our Advertising Campaign. Window and counter displays can do wonders. The profit on Poudre Nildé is generous and will pay you well for your efforts.

Made in six shades, rachel, naturelle, blanche, rose, basanée, indienne. Handbag size, 1/-; medium, 2/-; large, 3/6. Leather or fancy embroidered vanity cases with mirror in lid. Small size, 5/-; medium, 7/6; large, 10/-.

for the dressing table in the new large box, without sifter or puff.

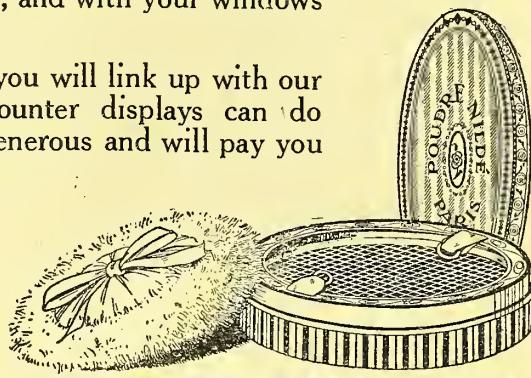
Specially manufactured to meet the persistent demands of public and trade. P.A.T.A. Price.

1/6



Actual size of box.

Every box  
contains a  
puff.



All Nildé preparations  
show 33 1/3% profit  
on selling price

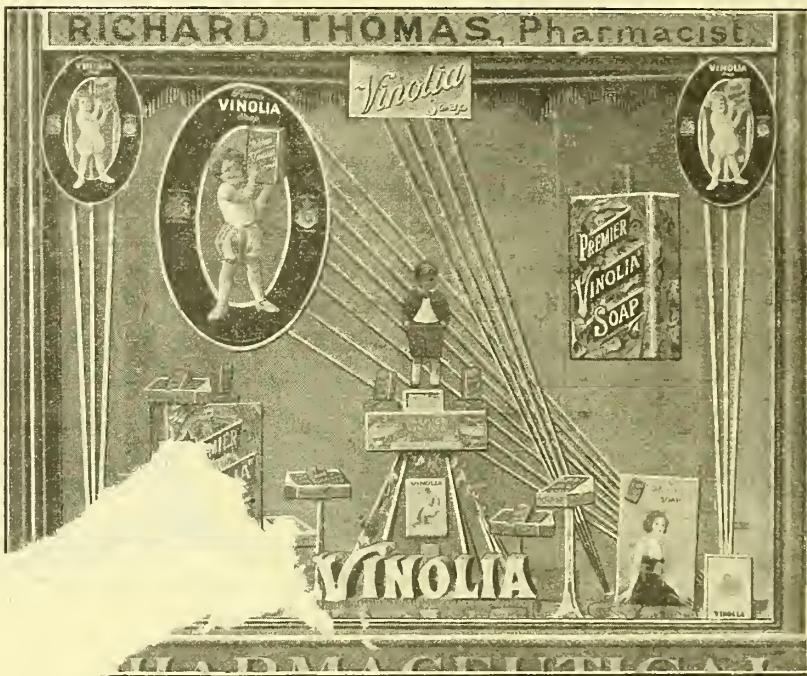
Sole Agents :

NILDÉ (Paris) AGENCY LTD.  
296, Regent Street,  
London, W.1  
Phone : Mayfair 5282.



# Let Premier pay your Taxes

Solus displays pay especially well when a largely advertised product is selected



DISPLAY MADE BY R. THOMAS, PH.C., HIGH STREET, MARYLEBONE

In addition to reminding your regular customers that you are up-to-date such displays secure custom of passers-by. Take advantage of our advertising by showing

BRITISH OWNED

BRITISH MADE

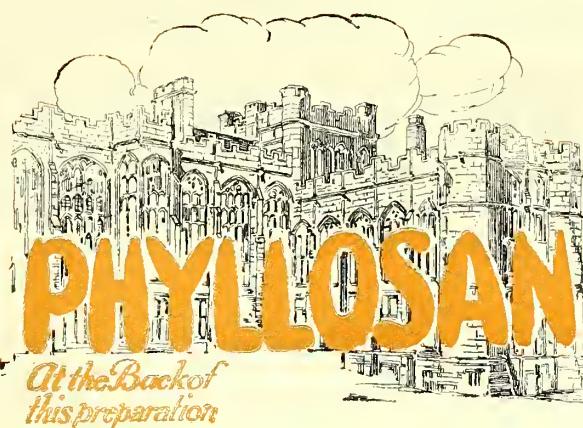
# Vinolia

## PREMIER SOAP

*First for Fragrance—Premier for Purity*

VINOLIA CO. LTD., BLACKFRIARS, LONDON, E.C.4

R.V. 743—29T.



### Remarkable Evidence of Efficiency

**A** PREPARATION for the treatment of Anæmia, Neurasthenia, Wasting Diseases and General Debility (prepared under the directions and from the formula of E. Buergi, M.D., possessing the testimony of a mass of scientific and medical evidence of efficiency. A remedy reliable and prompt, producing a decided roborant and invigorating effect on the entire system, with an immediate influence on the haemoglobin content, clinically proved far superior to and more efficient than iron or any other known preparation.

Extensively prescribed and highly recommended by the Medical Profession. Commented upon by all Scientists and Doctors right down to the declaration of Sir Arthur Shipley, F.R.S., at the Royal Institute, where he stated with regard to the vital principle of this preparation "It makes the world go round" and that of A. W. Fuller, M.D. (Formerly Resident Medical Officer at the Royal Waterloo Hospital), "The improvement under the use of Phyllosan is marked and progressive. It has been widely used and both Scientists and practising Physicians agree as to its value." The correspondence in "The Lancet" by David Walsh, M.D. (Senior Physician, Western Hospital), - "The established value of Phyllosan."

Noted Hospital and Independent Medical reports have been published pointing out the therapeutic value of Phyllosan. Reports on a series of Hospital cases under Phyllosan treatment (each case having previously been treated with every known method without result), showed remarkable and immediate improvement within one month on Phyllosan alone. Blood specimens of these cases were examined and reported upon by the Clinical Research Association.

---

Phyllosan is made in tablet form supplied in bottles, obtainable through any Wholesale House in the British Empire.

---

For Literature, Copies of Clinical Reports, Trade Terms, and further particulars, communications should be addressed to :

**Chlorophyl & Chemical Corporation, Ltd.,**  
CONTRACTORS TO THE ADMIRALTY,  
26 Coventry Street, LONDON, W.I.

Telephone: Regent 4363.

Telegrams: Filosan, Piccy, London.

# *Nothing Attracts Like* **A CONTRASTING COLOUR**

**T**HREE is no surer method of arousing the public's attention and interest in your message than by employing a whole-page announcement in a contrasting colour.

The "DAILY EXPRESS" is the only great newspaper with a National Circulation that enables you to do this.

The "DAILY EXPRESS" Back Page is now at your disposal for advertisements employing not only Orange as a second colour, as in the Thermogene announcement opposite, but also Red, Blue, Green, Yellow and Brown. (Other tints possible by arrangement.)

## *The Cost is only 20% Extra*

Pages in Colour are bookable two days per week and three days per week alternately.

***Make your reservations now.***

For specimen copies and full particulars, address  
The Advertisement Manager.

# **Daily Express**

116 FLEET STREET, LONDON, E.C.4.

Telephone : Central 8000.

*It is to be noted that the Thermogene Co. successfully made their packet stand out by using a second colour in this announcement covering the "Daily Express" Back Page.*

# INFLUENZA DANGER

Treat a Chill or Cold with Grave Suspicion  
Use Thermogene Without Delay

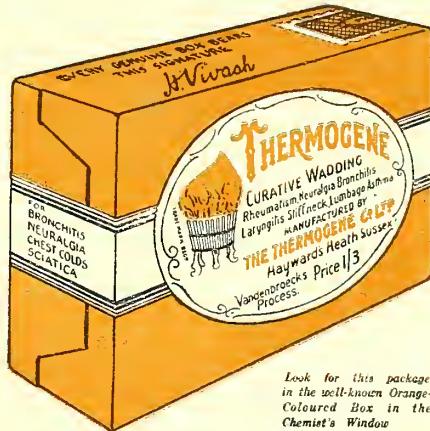
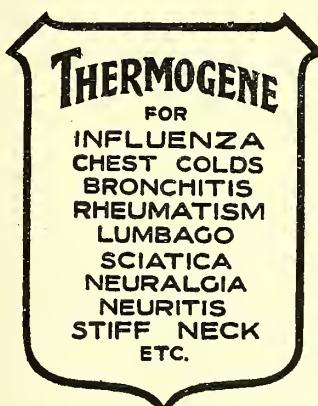
**REMEMBER**, Influenza is about. Treat what may seem to be "Only a Chill or Cold" with suspicion—and with Thermogene.



THE "INTERNAL WARMTH" so quickly and lastingly created by medicated Thermogene—well wrapped round the chest and back—will check a Chill or Cold and go a long way to lessen the severity and dangers of Influenza.

Influenza and its alarming—and oft-times fatal—complications develop with a rapidity that demands the earliest possible treatment.

Be ready—get a 1/3 or 3/- Box of Thermogene TO-DAY for immediate use if a warming Chill or Cold arises in your household. See the "Directions for Use" enclosed in every box of



Look for this package  
in the well-known Orange-  
Coloured Box in the  
Chemist's Window

AT ALL CHEMISTS & STORES AT 1/3 & 3/- THE BOX  
Always the same price wherever Thermogene is sold

# THERMOGENE

TRADE MARK REGD.

THE SHIELD THAT SAVES

THE THERMOGENE CO., LTD. 29, HAYWARDS HEATH, SUSSEX



*This was the first 2-Colour Advertisement to appear in The "Daily Express."*

*"NOTHING SUCCEEDS LIKE SUCCESS."*

# KOLYNOS LEADS THE WAY

Wednesday, February the 27th, was undoubtedly a red-letter day in the history of National Journalism, when the back page of the *Daily Express* appeared for the first time printed in two colours.

The subject of this enterprising experiment was

# KOLYNOS DENTAL CREAM

That this innovation was well worth while has been proved conclusively by the many thousands of coupon requests received, and the remarkable response from the Trade, both Wholesale and Retail. Our success is shared by our friends, and we take this opportunity of acknowledging with gratitude the congratulations received on our achievement, and for the splendid way in which our Press Campaign is being linked up by Window Displays throughout the country.

**KOLYNOS INCORPORATED**  
*Laboratories and Offices :*  
**CHENIES STREET - - - LONDON, W.C.1**

## YOU CAN DO BIG BUSINESS WITH M.P.S.

*An attraction to your Pharmacy*

There is no brand of packed pharmaceutical preparations on the market which conveys to the public such an impression of quality and reliability as the M.P.S. Series. The letters M.P.S.—medicines pure and sure—convey to the public a definite meaning without any further explanation being necessary. The old English character of the pack, its quiet attractiveness suggesting the highest quality, make the series a reputation-builder, bringing good-will for the pharmacist, strengthening his professional status and satisfying his customers that

they are purchasing the best that money can buy every time an M.P.S. preparation is sold.

With so many preparations on the market it is very difficult for the public to adhere steadily to one brand unless a strong association couples that brand in their mind with the goods and their quality. The M.P.S. Series has that association, and not only do they link the brand with the highest quality, but they also link your name—the individual pharmacist—with the best quality and service obtainable. Surely a very good thing for your business.

W. B. CARTWRIGHT LTD. :: RAWDON NEAR LEEDS



THE M.P.S. SERIES



THREE POINTS ARE  
ESSENTIAL TO  
SUCCESS IN A  
SELLING PRO-  
POSITION

- 1 The good will of the retailer—good profits and a good article, which make it a pleasure to recommend it.
- 2 Retail price and "get-up," which clinch a sale.
- 3 Quality of the contents, which brings REPEAT ORDERS.

These three points are embodied in our  
WATCH-SHAPE  
"ELSTER PLATZ"  
*Johann Maria Farina*  
EAU DE COLOGNE



We are actual distillers of Bergamot, Neroli, Lavender, and other oils entering into the composition of Eau de Cologne and Lavender Water, and our prices are based on the manufacturing cost of the oils.

In  $\frac{1}{2}$  oz., 1 oz.,  
and 2 oz. Flasks

Also "OLD ENGLISH" Lavender Water  
in the same Series.

PARTICULARS AND PRICES ON APPLICATION.

**SPURWAY ET CIE.**  
LIMITED.

89 GREAT EASTERN ST., LONDON, E.C.2

Telegrams: "Neroli, London."

Telephone: Bishopsgate 1372.

Factories & Distilleries: Cannes-Grasse, Riviera.  
Technical Laboratories: Paris.

NEW YORK.

KINGSTON (ONTARIO).

# ZENOBIA LTD.

Have pleasure in informing their customers  
in the

## IRISH FREE STATE

that with the view of saving them the trouble  
and loss of time entailed by clearing goods  
through Customs, they have arranged for their  
Agent **Mr. JOHN JEFFERSON**

2 Astons Place, DUBLIN

to carry a stock of the leading

## ZENOBIA PERFUMES and ZENOBIA EAU-DE-COLOGNE

Orders for these lines if addressed direct to  
Mr. JEFFERSON will be executed promptly and  
duty-paid.

*Carriage paid on all orders of the value of £2  
and upwards.*

### ZENOBIA, LIMITED

*Manufacturing Perfumers and Toilet Soap Manufacturers,  
LOUGHBOROUGH.*

## ESSENCES HIGHEST CONCENTRATION.

*Sole Agents for Gt. Britain and Colonies*

### FOR FRIES & BRO. NEW YORK

*The World-Renowned Makers of  
FIRST QUALITY ESSENCES.*

Stocks in London. PEACH APRICOT HONEY MAPLE  
Ask for Quotations & Samples.  
&c.

A. CONNELL & CO., Melba House,  
WENLOCK ROAD, CITY ROAD, LONDON, N.1  
Phone: Clerkenwell 7266. Tele.: "Nitrozone, Ald. London."



**S**TILL another Evan Williams Henna Shampoo that means more business.

The Evan Williams Camomile Shampoo is a shampoo specially prepared for fair hair. It gives a beautiful blonde tone and a brilliant tinge.

Stock the complete series of the Evan Williams Henna Shampoos —there is a grade for every kind of hair, and what is more you can guarantee they are **SAFE** to use —this is an important item to a woman.

*It will pay you to stock the*

**EVAN WILLIAMS**  
Original Henna Shampoo

*Write for full particulars  
of trade terms from*

**The EVAN WILLIAMS CO., LTD.**  
14 Union Street, London, W.1

# Nuctone

for **GREY HAIR**

## BRINGS PROFITS TO YOU

There are thousands of grey haired men and women who shun the very thought of instantaneous hair dyes, but who secretly mourn the loss of colour to their hair. It is to such people that NUCTONE makes a strong appeal.

The advantages of NUCTONE are:—

1. The colour is restored gradually.
2. It can be used for a whole head of hair or a few greying strands.
3. The hair can be shampooed.
4. It is easily applied and has no offensive odour.
5. The growth of the hair is stimulated and new lustre given.
6. It is guaranteed free from any lead and sulphur combination or other harmful ingredients.

You can recommend it to your customers with absolute confidence.

Small size 3/9 per bottle. Trade terms 32/- per doz.  
Large size 6/6 " " 52/- "

*Showcards and explanatory booklets for  
free distribution are furnished on request.*

NUCTONE for dark and medium hair.

NUCTONE ECLAIRE for fair and auburn shades.

NUCTONE CONCENTRE for Gentlemen

*Obtainable from:*

**HENRY C. QUELCH & Co. Ltd.**  
4, LUDGATE SQUARE, LONDON, E.C.4  
and other Wholesale Houses.

Manufactured by  
STEWART, GOODALL & DUNLOP LTD.  
4, Dering Street, London, W.1.

# DEARBORN (1923) LTD.

37 Gray's Inn Road,  
LONDON, W.C.1.

## Toilet Specialties.

	Price per doz.	Selling Price to Retailer P.A.T.A.
PILENTA SOAP ...	10/-	1/-
A complexion soap.		
PROLACTUM ...	10/-	1/-
For the lips.		
PARSIDIUM JELLY ...	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ...	22/6	2/6
A dressing cream.		
BORANIUM ...	22/6	2/6
A hair tonic.		
CLEMINITE ...	22/6	2/6
For a face lotion.		
COLLIANDUM ...	22/6	2/6
For a face tint.		
PERGOL ...	22/6	2/6
A deodorant.		
TEKKO PASTE ...	22/6	2/6
Camphor cream.		
STALLAX ...	22/6	2/6
For a shampoo.		
JETTALINE ...	31/6	3/6
For clearing the skin.		
PHEMINOL ...	36/-	4/-
A depilatory.		
MENNALINE ...	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ...	31/6	3/6
A face cream.		
STYML ...	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ...	22/6	2/6
Hair-curling fluid.		
BARSYDE ...	22/6	2/6
Dandruff eradicator.		
TAMMALITE ...	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ...	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ...	22/6	2/6
For whitening the hands.		
COCONOIDS ...	31/6	3/6
For figure development.		

### The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES	{	36/-	4/-
For obesity.		58/6	6/6
SOFT PALERIUM...	...	45/-	5/-
For wrinkles.			
LIQUID NAIL POLISH ...	10/-	1/-	
Brilliant and lasting.			

Stocked by ALL Wholesale Houses.

### COLONIAL DEPOTS AND AGENCIES.

*Australia: ALL WHOLESALERS, & DEARBORN (Australia), Ltd., Grace House, Clarence Street, Sydney.*  
*South Africa: LENNON Ltd., Cape Town, etc.*  
*SIVE BROS. & KARNOVSKY, Johannesburg.*  
*India: FRAMJEE & SON, Bombay.*  
*A. L. CHOURY, Calcutta.*  
*New Zealand: SHARLAND & CO., Auckland & Wellington.*  
*South America: DEARBORN (South America) Ltd., Calla Salta 261, Buenos Aires.*  
*Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore.*

## LINES THAT SHOW GOOD PROFITS



### Taylor's CIMOLITE PREPARATIONS

50 YEARS' REPUTATION.

Used in all Royal Nurseries and by the Nobility.

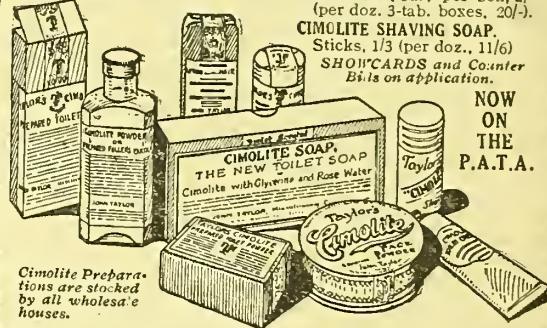
#### CIMOLITE TOILET POWDER.

Boxes, 1/12 (per doz. 9/6)  
Tins, 3/-, 5/6, 11/- (per doz.  
27/-, 49/3, 96/-)

Bottles, 3/3, 6/6 (per doz.  
30/-, 55/6)

#### CIMOLITE TOILET CREAM.

Collapsible tubes, 1/3 (per  
doz. 11/6)



#### CIMOLITE SOAP.

Per tablet, 8d.; per box 2/-  
(per doz. 3 tab. boxes, 20/-)

#### CIMOLITE FACE POWDER.

Boxes, 1/12 (per doz. 9/6)

Tins, 3/- (per doz. 27/-)

Bottles, 3/3 (per doz. 30/-)

#### CIMOLITE SOAP (Violet-Scented).

Per tablet, 8d.; per box, 2/-  
(per doz. 3 tab. boxes, 20/-)

#### CIMOLITE SHAVING SOAP.

Sticks, 1/3 (per doz., 11/6)

SHOWCARDS and Counter  
Bills on application.

NOW  
ON  
THE  
P.A.T.A.

ATTRACTIVE SHOW CARD obtainable from  
all wholesalers or direct.

PREPARED ONLY BY

JOHN TAYLOR, Manufacturing Chemist  
30 BAKER STREET, PORTMAN SQ., LONDON, W.1

## “DOROTHY DAINTY” POWDER BAG



OLD PRICE

1/3

NEW PRICE

6½d.

(Assorted Colours)

Complete with Puff,  
Powder & Silk Bag.

Since taking over  
the manufacture of  
this novelty the de-  
mand has increased  
enormously.

We get repeats daily, which prove its worth.

WILLIAMSON BROS.

126 SOUTHWARK STREET, LONDON, S.E.1.

Phone: HOP 3419.

THE LATEST

*"Beaverpuf"*  
 TRADE MARK  
 SENSATION

IS A NEW LAMPUF MODEL

To Retail at **2/6** Complete

Obtain particulars from your wholesaler or write direct.

*"Beaverpuf" Ltd.*

PRIEST BRIDGE,  
 MORTLAKE,  
 LONDON, S.W.14

Telephone: PUTNEY 166.

SOLE CONCESSIONNAIRES FOR GREAT BRITAIN AND IRELAND.

Issued by the Patentee and  
 Sole Manufacturer:

**FRANK MOUSLEY**, "Wilderness" Works,  
 East Sheen, London, S.W.14

**Captain Wyndham's  
 Royal Water Softener**

*Finest Toilet Preparation  
 Entirely free from Soda*

From all Wholesalers.

London Depot: 76 Chiswell St., E.C.1

HERE IS THE LINE you must surely have  
 been looking for in order to increase your  
 profits and meet your customers' ever-  
 increasing demand.

**"GALJADO" SCURF LOTION**  
 for all SCALP and HAIR TROUBLES.

Small size, 10/6 per dozen. S.P. 1/6 per bottle,  
 Standard " 16/6 " S.P. 2/6 "  
 Large " 33- " S.P. 4/6 "

"GALJADO" TOILET PREPARATIONS are universally  
 renowned, and are obtainable of all Wholesalers or direct.  
 Current price lists sent free on application to

**THE GALJADO PERFUMERY CO., Ltd.**  
 9 Goswell Road, LONDON, E.C.1.



Illustration of  
 No. F.101.

VERY NEW AND VERY CHARMING.

**POUDRE COMPACTE - THÉ DANSANT**

(Regd.)

In two } No. F.100 Complete with Puff ... ... ... 7/6 doz.  
 styles } " F.101 " " " and diminishing Mirror 10/6 "

"Thé Dansant" Powder, which is of the very highest grade, is in assorted shades, and is compressed by our entirely new process which gives greatly increased strength and freedom from breakage, while yielding the finest adherent powder in use. Both these lines are wonderful value and will give satisfaction to seller and consumer.

Manufactured only by

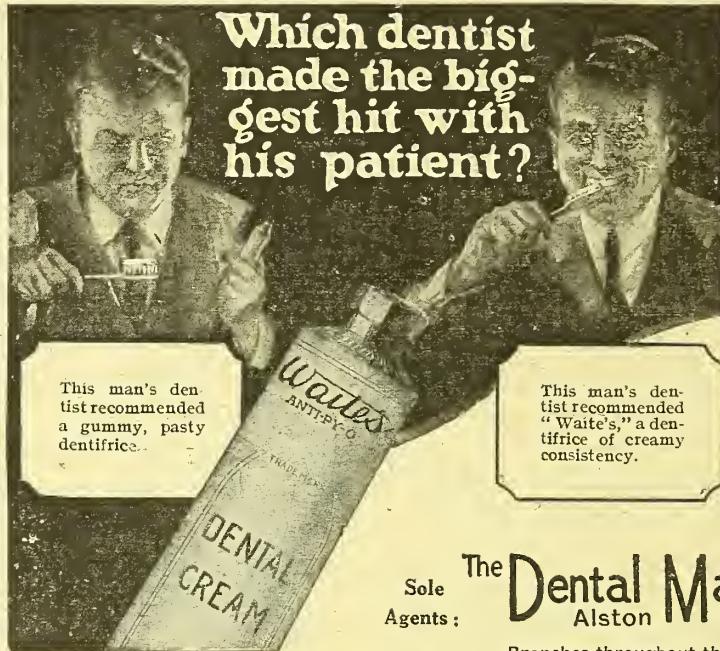
**SOLPORT BROTHERS, Ltd.**  
 184/190 Goswell Road, London, E.C.1.  
 and obtainable through all Wholesale Houses

# WAITE'S ANTI-PY-O DENTAL CREAM

Which dentist made the biggest hit with his patient?

This man's dentist recommended a gummy, pasty dentifrice.

This man's dentist recommended "Waite's," a dentifrice of creamy consistency.



Sole Agents:

The Dental Manufacturing Co. Ltd  
Alston House, Newman Street.

Branches throughout the Provinces.

LONDON, W.1

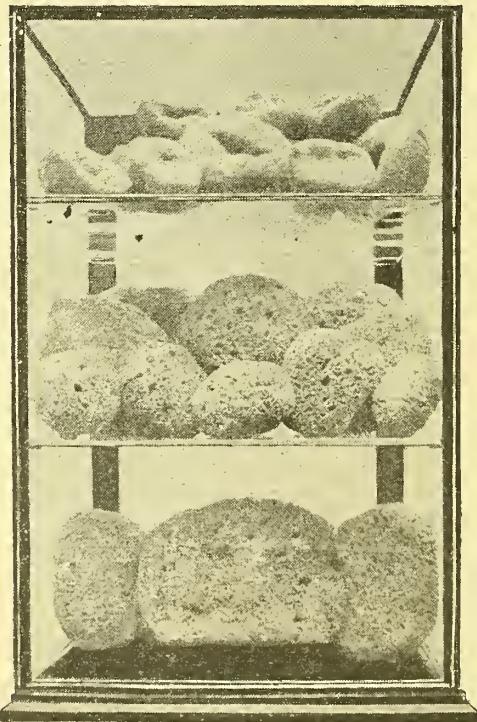
has earned its great reputation in America by its wonderful efficiency in mouth hygiene. The cleansing qualities of "Waite's" are fully recognised by the dental profession, and its success is due in large measure to professional recommendation.

You will like the unusually pleasant flavour of this dentifrice. "Waite's" is a thoroughly efficient cleansing agent. It removes the film from the teeth without harshness. "Waite's" destroys millions of germs in the mouth.

It is not a pasty, gummy preparation, but a velvet smooth cream which, when applied to the teeth, immediately fades away.

Chemists who recommend Waite's Dental Cream to their customers win their hearty approval.

Mail for a free full size tube of Waite's Dental Cream for your own use and tests. Convince yourself that it is the kind of dental cream you want your friends to use.



## SPONGES that justify you in displaying them

Buy from actual importers  
and thus save intermediate profits  
All goods sent on approval carriage paid.  
Write for Prices and Type Samples.

THE SPONGE FISHING  
& IMPORTING CO., Ltd.

25 Finsbury St., Chiswell St.  
LONDON, E.C.

BUYING BRANCHES at Sfax, Tripoli,  
Kalymnos-Symi, Hydra, Batabano, Nassau and  
Florida.

SELLING BRANCHES at Brussels, Paris,  
Barcelona and Hamburg.

Phone: Clerkenwell 5428. Telegraphic Address:  
"Sachiapas, Finsquare, London."

No connection with any 'Ring' or 'Combine.'

# Big Sellers

# Thanks!

We know our lines are wonderful sellers, but—  
We like to get letters like these from Chemists—

### REMARKABLE TESTIMONY

Like Mr. Chas. Robertson, Mr. A. W. Cornish and many others, they write to tell how restless they find their stocks of these two preparations.  
We have numerous other similar letters which will appear in future advertisements.

Messrs. Saltrates Ltd.,  
London, W.1.  
Dear Sirs,  
Please send enclosed order carriage paid.  
Reudel is very restless. I have difficulty in keeping it on the shelf.  
This may interest you:- At the same time I received an order for Reudel by post yesterday, I had a customer at my counter calling for a second packet. A few moments after, another customer called for 3/3 Alkia.  
In less than a quarter of an hour I had realized 3/1 profit, from your advertising. Very interesting that, isn't it? I am always interested in results from advertising, being a keen believer in printers ink.  
Yours very truly,  
*Chas. Robertson*

Messrs. Saltrates Ltd.,  
London, W.1.  
Dear Sirs:-  
I was reading through reproduction of Mr. Robertson's (St. Andrews) letter on page twelve of to-day's *Chemist & Druggist* and I think this afternoon I surpassed his feat, in my shop as above. Four customers following, purchasing Saltrates preparations as follows:-  
2/- Reudel Bath Saltrates } All in  
2/- Alkia Saltrates } five  
2/- Reudel Bath Saltrates } minutes  
2/- Reudel Bath Saltrates } or so  
Later on in the day I was asked for another 2/- size Reudel, so I missed the sale, having just sold the last small package. I am quite prepared to admit that this is in part due to other brother Pharmacists being "sold out". But your preparations are always good sellers with me, I thought the foregoing would interest you, and it is absolutely authentic, as my lady Asistant can witness. If the "Tale wants advertising" and I may "point a moral", I would say never lend up your wherries with goods that stick there, but to borrow Mr. Robertson's "Nelly" phrase fill up with "restless" goods, which are restless to the point of removal.  
With compliments,  
Yours faithfully,  
*A. W. Cornish*



A  
SALTRATES  
EXHIBITION  
DISPLAY

NOTE—  
These statements were sent to us without solicitation of any kind.

## Guaranteed Sale Terms

Free Bonus  
Free Cases  
Free Carriage

Full particulars of special display terms, embracing Free Bonus, Free Cases and Free Carriage will be sent immediately upon request.

Our Guarantee is that cash will be refunded upon receipt by us of any goods which fail to sell.

SALTRATES LIMITED.

EUSTON BUILDINGS, LONDON, N.W.1.

## ALKIA SALTRATES

The best specific for Rheumatism  
Gout, Kidney Troubles, Etc.  
Price 3/3 P.A.T.A.

## REUDEL BATH SALTRATES

Unequalled for the Bath or Foot-bath.  
Price 2/- and 3/3 P.A.T.A.

## KAL - SEL

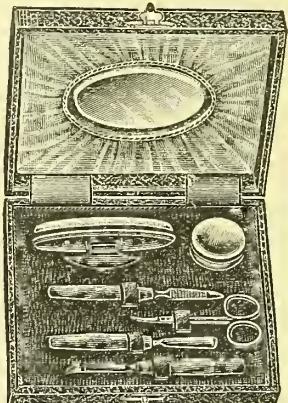
The Super Saline  
Price 1/11 P.A.T.A.

# ADOLPH SCOTT, Ltd., BIRMINGHAM.

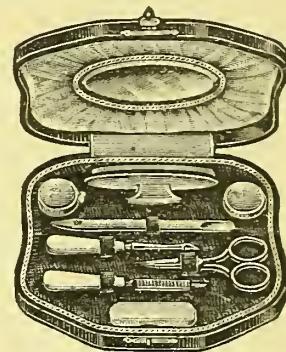
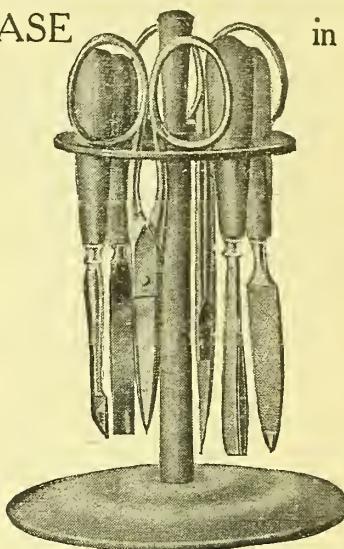
24, 25 and 26 GREAT HAMPTON STREET.

MANICURE SETS in CASE

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LADIES' AND GENT'S  
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EBONY, IVORY,  
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GOODS A SPECIALITY.

EVERYTHING FOR THE CHEMISTS' FANCY DEPARTMENT  
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Are known the World over as  
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**B**EST  
BRITISH  
BRUSHES

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## YOU CAN SELL

**Karmit**  
MAKES TRAVELLING A PLEASURE  
SEASICK - CURE

*The Proved British  
REMEDY for SEASICKNESS*

From your Usual Wholesaler or  
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Prices :  
TWO SIZES :  
3/- size, for 24 hours  
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Aromatic Chemicals      Flower Oils  
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WILL NOT COLLAPSE IN HOT WATER

Per 20/- Doz.

VERY HARD YELLOW.  
HARD, MED. SOFT.

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See the correct Regd. No. 593367 on each Box.

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Largest British Sales built on Recommendation.

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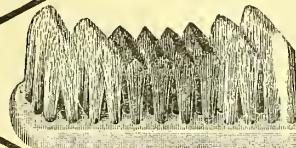
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WHITE BRISTLE ENDS.

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TUBES, STERILISED  
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BEST QUALITY ONLY.  
HARD AND MEDIUM.

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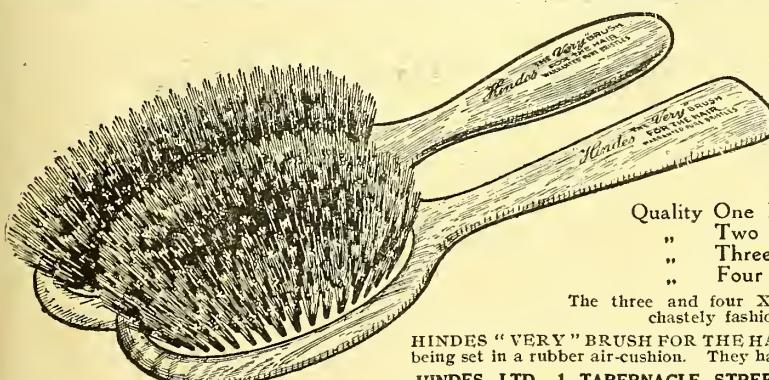
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**1924 Model**

HANDLES ASSORTED—  
VENTILATED—  
HOLE IN HANDLE  
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WHERE STRENGTH  
IS REQUIRED.

17/- A DOZ. MEDIUM.  
19/- A DOZ. HARD.

Exminster, Devon



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**“VERY”**  
**HAIR BRUSH**

Quality One X	Sold at 7/6d. each.	TRADE PRICE 33 1/3%
” Two XX	10/6d. ”	
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The three and four XXXX grade is made in Ebony or Rosewood  
chastely fashioned in both oval and circular bodies.

HINDES “VERY” BRUSH FOR THE HAIR is guaranteed pure bristles the multiple tufts  
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HINDES LTD., 1 TABERNACLE STREET, LONDON, E.C. :: Works: BIRMINGHAM

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BUY CHAMOIS LEATHERS.  
*WHY NOT FROM YOU?*

**PROFITS ARE GOOD**  
and there is a quick turnover.

## CHAMOIS LEATHERS

Chamois Leather  
Housemaids' Gloves and Gauntlets  
Chamois Leather Pads (WINDOW  
CLEANERS)  
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*For best value in the world of these goods, send for Price List to:*

**JOHN T. BARRADELL**  
33 Markington St., Moss Side  
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## HAIR-, HANDLE-, DUST- AND POCKET-COMBS

*of the very finest quality  
made in first-class  
ARTIFICIAL HORN.*

*Also in  
IMITATION TORTOISE - SHELL  
AND TRANSPARENT COLOURS.*

*Manufactured as a Speciality.*

D. W. SCHULTE, Neuss-Zoppenbroich,  
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Established 1840.

AGENTS WANTED.



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Here are three Snowfire Preparations, all containing those healthful emollients which have made Snowfire famous, and which sell well and profitably. **Snowfire Tablet**, a wonderful skin soother and a protection against chapped hands, roughened skin and cracked lips; **Snowfire Vanishing Cream** which enables every woman to gain and retain Beauty of Skin Texture, and **Snowfire Soap**, the soap that soothes and keeps the skin soft and healthy.

Be sure to order an ample stock to meet the increased demand with the colder weather, and to reap the benefit of our Advertising Campaign which will send customers to your shop and profit to your bank.

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*Write to-day for terms and particulars to the Sole Manufacturers :  
F. W. Hampshire & Co., Ltd., Riverside Works, Derby.*

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**Complete Range**  
DRUGGISTS' SUNDRIES

*including*

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(Whalebone and Bristle)

**TOOTH BRUSHES**  
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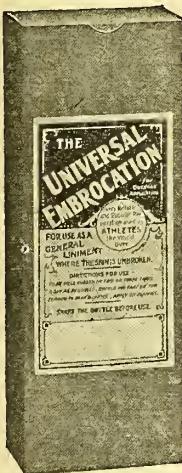
**SHAVING BRUSHES**  
(all kinds)

**FRANCIS NEWBERRY & SONS, Ltd.**  
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# LORIMER-MARSHALL

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### THE UNIVERSAL EMBROCATION

A special Embrocation for Athletes and for general use.

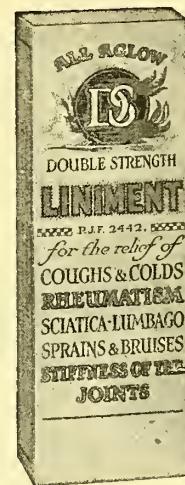
4-oz. plug-stoppered Flats 8/- per dozen.

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"ALL AGLOW."

Oils of Camphor and Amber, with Capsici and other Rubrifacients.

Nicely Cartoned 3-oz. Mexicans 9/6 per dozen.



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(MADE IN CANADA)

Packed in 6's and 12's.

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27/- per box. 3 boxes 26/6 per box.

### VALET RAZORS, No. 99

20/- per dozen in 6 dozen lots,  
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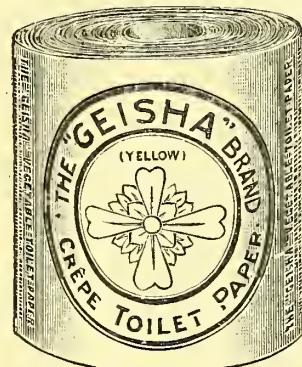
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All makes of Razors and Blades in stock at Special Prices.

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1,000 only $\frac{1}{2}$ min. Clinicals, Lens front, N.P.L. tested	...	...	@ 14/- doz.
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Guaranteed English made and offered subject to being unsold			
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CASH  
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SEAMLESS MOULDED SURGICAL GOODS, PESSARIES, HOT WATER BOTTLES, URINALS FOR NIGHT OR DAY USE. Wholesale & Export Only.

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### INVALUABLE IN MATERNITY

And all cases where adaptability, elasticity and support are needed.

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### Crêpe Binders

are recommended by doctors and nurses everywhere. In all widths up to 11 inches they will stretch to double their length, yet firm and strong. Soft, clinging and hygienic.



Sole Manufacturers:  
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GREAT YARMOUTH.

Stocked by all the leading wholesalers

Put up in small  
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AN  
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"FIRST-AID," like charity, should usually start in the home, and, in many cases, unlike charity, should stop there.

Why not suggest to your customers a first-aid outfit made up of St. Dalmas plasters and simple bandages which will provide for most slight needs?

People like to be prepared, and an outlay of two or three shillings and a little helpful advice from you will put your customers in a state of readiness to deal with most home accidents.

These are some of our well-known plasters which are used in a large number of hospitals and are invaluable in the home.

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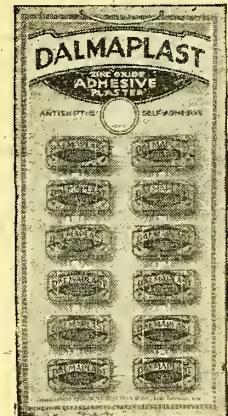
"DALMAPLAST" Zinc Oxide Adhesive Plaster

"LEICESTER" Hæmostatic Court Plaster

Also

"NATURAL" Brand Cotton Wool, Lint, Bandages, and all Surgical Dressings.

Write for full particulars and prices.



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**LEICESTER**

Established 100 Years.

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HERE is an unprecedented opportunity to acquire Surgical Instruments by leading makers. Complete Cases or Single Instruments, unused Government Surplus Stock at half the price ordinarily paid.

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A large range of Surgical Dressings  
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the best makers.

If you would take advantage of this opportunity, a request will bring full details—may we send them to you? Just state your requirements.

**NEW BRITISH DRUG CO. (Cairo)**  
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enables you to relieve and correct every type of foot trouble. Our tremendous National Advertising ensures a ready sale for Dr. Scholl's Appliances and Specialities, which are anatomically correct and approved by the medical profession. Write to-day for full particulars.

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DR. SCHOLL'S ANTERIOR METATARSAL ARCH SUPPORT  
restores the arch across the ball of the foot. Relieves and corrects pressure and pain at the sole, bunions, &c.  
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Write for SPECIAL OFFER—"Selling Cost and Bigger Profit."

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Supplied  
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**READY SELLER. BIG PROFIT.**

A *real* Foot Preparation. Attractively Packed.  
Retails at 9d. (protected price).

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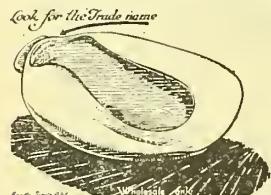
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Air Cushions, Bathing Caps, Bed Sheetings, Douches, Enemas, Finger Stalls, Gloves, Hot Water Bottles, Ice Bags, Jaconettes, Pessaries (Prolapsus, Dr. Patterson's, Pro-Race, Mensinga, &c.), Soothers, Sponge Bags and Sponges, Spray Bellows, Syringes, Specialities, Teats, Tubings, Urinals, Water Beds, Whirling Sprays and all Surgical Rubber Goods, &c., &c.

Balloons for Advertising Purposes a Speciality.

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To stock the PERFECTION Bed and Douche Pan is to provide for a strong demand throughout the Medical and Nursing Professions. They have proved that no similar article gives such satisfaction and comfort—and that is because the PERFECTION possesses many exclusive features. See the name PERFECTION when ordering supplies, and refuse all imitations; prices have lately been reduced. Send for illustrated booklet describing our full range of Hospital and Invalid Ware.

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to the Patentees and Manufacturers:—

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**SHERLEY'S  
DOG MEDICINES  
INSECT POWDER  
SHAMPOO, and  
LACTOL  
(P.A.T.A.)**



These preparations command a ready sale, and are by far the largest advertised of any on the market. They are protected at prices that leave an excellent margin of profit for the retailer, and the terms on which they are supplied preclude any possibility of loss. We have an excellent range of literature and show cards, and do all in our power to assist chemists by referring mail customers to them.

*Write for Price List and Terms.*

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**TINS** BOXES & CANISTERS  
(made in our own works)  
at keenly competitive prices.  
Let us quote for any kind or size you  
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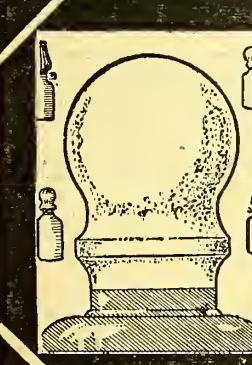
GOODALL, BACKHOUSE & CO., Leeds.

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investigate the  
NEW and IMPROVED

**VISKAP**

SELF - FIXING  
BOTTLE CAPS

Details from  
THE VISCOSÉ  
DEVELOPMENT Co., Ltd.  
BROMLEY, KENT.  
PROMPT DELIVERY.



**WATCH THIS SPACE  
EACH AND EVERY WEEK**



**WARDS  
OF WARRINGTON.**

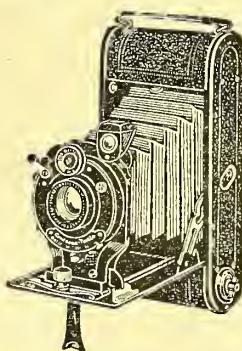
1/6 and 2/6, and 7lb. Tins  
at P.A.T.A. Terms.

Obtainable through the wholesale trade,  
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**CAMERAS**



**The COCARETTE "O" £3 7 6**

The Camera that gives your customers  
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**HUNTERS,**  
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WILLIAM COOPER & NEPHEWS, Ltd.

Manufacturing Chemists, Berkhamsted.

INVITE THE TRADE to communicate with them in regard to the stocking of "Weedicide" and other highly efficient Cooper Weedkillers (liquid and powder). These articles are in great demand, and carry a "worth while" profit to the stockist. Last year "Cooper" Agents eclipsed all previous selling records.

There's Money in Cooper's "Weedicide" for the Stockist

MAY WE HAVE THE PLEASURE OF HEARING FROM YOU?

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FOR

Standard DISINFECTANTS for all purposes.

Carbolic, Pine and High-Coefficient Fluids.  
Superior Grade LYSOL in attractive cartons.

DOG SOAP, POULTRY & PIG POWDERS, etc.

High-class attractive decorated tins and cartons. "Agent's own name."

BATTLE, HAYWARD & BOWER (formerly BATTLE, MALTBY & BOWER), Victoria Chemical Works, Lincoln.

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They're comin' in by scores,  
Ye needna try to keep them oot  
By merely steekin' doors.

There's lots o' fancy dopes for Rats,  
But "Rodine" croons them a';  
Jist try a sneechin' spread on bread,  
It maks maist Rats feel Sma'.

A Chemist o' Fife.

This is How "Rodine" appeals to a prominent Chemist in Fife.

"Rodine" is not only good for the Rats, but it is The Poison with the Preference—most Chemists prefer to push "Rodine"—it pays nearly 100% profit on every sale. This is the best time to push the "Rat Crusade." Do it now.

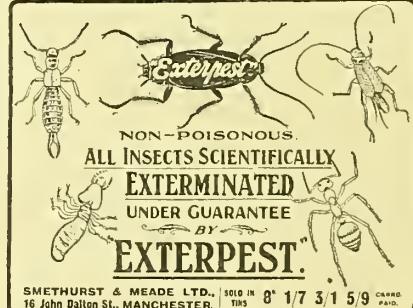


Sole Maker and Proprietor:—

**T. HARLEY**

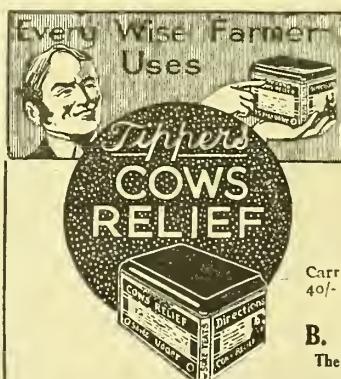
Manufacturing Chemist,

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SMETHURST & MEADE LTD., 16 John Dalton St., MANCHESTER. TINS 10/- 8/- 1/- 5/- 9/- PAID.

## LIVE SELLING AGENTS REQUIRED



### RETAIL PRICES.

2/9, 6/-, 14/-, and 21/- per tin.

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### BATTLE'S VERMIN KILLER

*kills*

Rats, Mice and other  
vermin instantly.

Its efficiency as a destructive agent is constantly  
testified to by users  
in all parts of  
the  
country.

In packets at 5d.  
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Are your stocks adequate?

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### OPTIMUS FILTERS

The most efficient household filter.  
Made in different sizes in earthenware, glass and tourist patterns.  
Stocked by leading wholesalers.

*Write for terms to the manufacturers.*

### MAWSON FILTER COMPANY

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### WONDERFUL VALUE!!

GUARANTEED 8-oz.

### GRAD. OR PLAIN MEDICAL BOTTLE

12/- gross for not less than 3 gross.

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# PRECIPITATED CHALK

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TO SUIT ALL PURPOSES

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SO GOOD OR BETTER RETURNS  
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&c. &c.

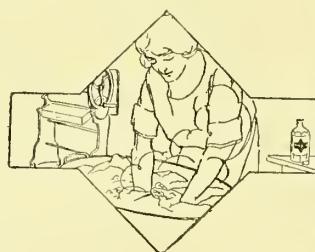


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There is a scientific selling plan behind Milton's great national advertising campaign—launched yesterday with the "Daily Mail" front page, and continuing with prominent space in the leading newspapers, weeklies and magazines.

This is how it will help you.

*Milton advertising is making your customers use more Milton.*

The more uses an article has, the quicker will purchasers consume it and come back for more.

Think how much more soap you'd sell if soapy water could be used to drive motor cars!

Milton advertising is selling Milton "for 101 uses in the home." Wherever space permits, a list of the most important is given. Fresh uses are being continually explained in the copy.



*A Boon Throughout the Home*

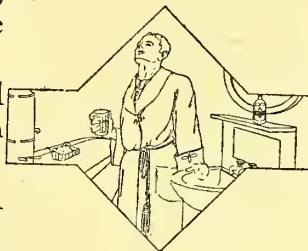
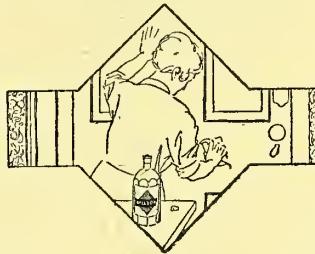
## Advertising behind it

In addition to the main campaign, seasonal uses will be emphasised at the opportune time.

Every use advertised is a practical household use. Milton is a certain success in every one.

It is a sound selling policy. It attracts fresh users. It makes everybody use more.

All you need to do is to see that your public buy their Milton from you. Tell them you sell Milton — with Milton in your window, with Milton display material.



**MILTON**

*For 101 Uses*



## To Help You Sell More Musterole

Musterole showcards—one in your window, one on your counter.

These beautiful Musterole salesmen profitably tie-up with Musterole advertising....

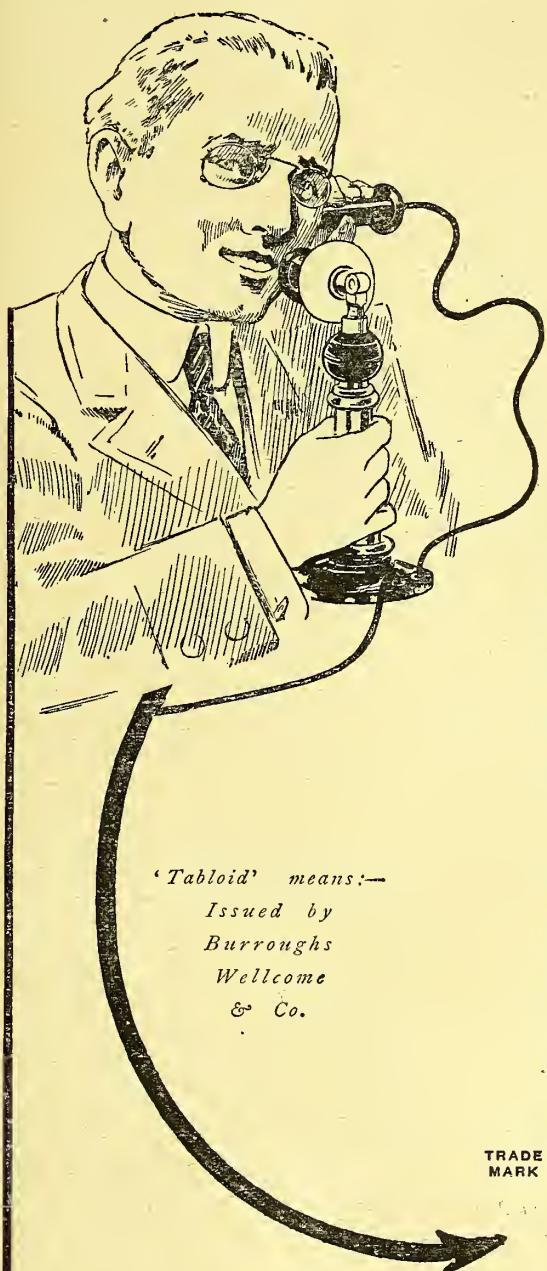
Reminding your public—when looking in your window or, better still, when at your counter—of their need for Musterole....

Ensuring continuous Musterole profits for *your* till.

May we send you a supply of Musterole showcards—free?

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# MUSTEROLE



*'Tabloid' means:—*

*Issued by  
Burroughs  
Wellcome  
& Co.*

*"Please book  
my order  
for  
Easter"*

Were you one of those pharmacists who were caught with short stocks last Easter? Much good business went "across the road" then, mainly because some Chemists were unprepared for the early holiday.

This year Easter is late. The holiday spirit will be intense and will probably show itself in increased photographic activity well before Easter. Be prepared. Order now sufficient stocks of

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**PHOTO CHEMICALS**

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LONDON



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.. SUNDRIES .. .. ..	10/10	"
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.. MERCURIC IODIDE AND SODIUM SULPHITE, 13/6	"	
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.. POTASSIUM META- EISULPHITE, 13/6	"	
.. COLOUR PLATE INTENSIFIER, 21/9	"	
(Subject to usual terms)		

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describes it as  
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admirable pre-  
paration."

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FOR  
INFANTS

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COLD MEDAL AWARDED HEALTH EXHIBITION, LONDON.

Wholesale of all Wholesale Houses and Shippers  
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"Benger's Food  
has by its excel-  
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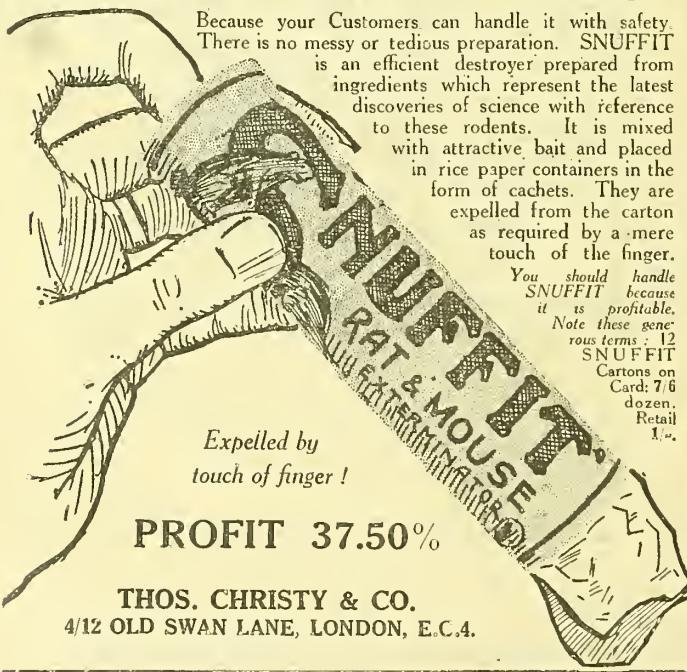
INVALIDS  
AND  
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You should handle  
"SNUFFIT"

RAT AND MOUSE EXTERMINATOR

Because your Customers can handle it with safety. There is no messy or tedious preparation. SNUFFIT is an efficient destroyer prepared from ingredients which represent the latest discoveries of science with reference to these rodents. It is mixed with attractive bait and placed in rice paper containers in the form of cachets. They are expelled from the carton as required by a mere touch of the finger.

You should handle  
SNUFFIT because  
it is profitable.  
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Cartons on  
Card: 7/6  
dozen.  
Retail  
1/-



Expelled by  
touch of finger!

PROFIT 37.50%

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New Showcard (as illustrated) free with orders.





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THE CHEMIST AND DRUGGIST is in circulation and reputation the leading journal addressing the Chemical and Drug trades in the British Empire and other countries in the Old and New Worlds. It is the official organ of the Pharmaceutical Society of Ireland, the Chemists' and Druggists' Society of Ireland, and of other Chemists' Societies in the Overseas Dominions.

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TWENTY SHILLINGS a year payable in advance to any part of the world, including a copy of *The Chemist and Druggist Diary*. Subscriptions may begin with the first issue of any month. Single Copy, 9d., post free; *Diary*, 10s., post free. Postal orders and cheques should be crossed "Bank of Liverpool and Martins, Ltd."

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**Head Office : 42 CANNON STREET, LONDON, E.C.4**

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## Ideas

We invite contributions to this Section

Red circular gummed tickets for pricing sponges are no use as they are, but touch them with a little fish glue or secocine and they adhere to the sponge perfectly.—*Rusticus* (18/3).

\* \* \* \*

A useful cement for many purposes in the pharmacy may be prepared by mixing plaster of Paris and water-glass. This must be freshly mixed as required, and a good quality plaster will make the best cement.

\* \* \* \*

Regarding stocktaking at the end of the month, I have prepared for it by filling in beforehand the drugs and chemicals additional to those on the *C. & D.* Stock-taking Sheets. The common-sense method of stocktaking instituted by the *C. & D.* was a great success last year.—*W. E.* (6/3).

## English and Welsh News

The Editor would be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

### Contracts

The following tenders have been accepted by the bodies named :—

Bridge Guardians.—Mr. J. Barron, chemist and druggist, drugs.

Eton Guardians.—Griffith & Walden, chemists, Slough, drugs and sundries.

Isle of Thanet Joint Hospital Board.—Mr. F. Pyman, chemist and druggist, Westgate-on-Sea, drugs.

Isle of Wight Guardians.—Timothy White Co., Ltd., drugs; S. Maw, Son & Sons, Ltd., B. Pratt & Co., The "Sanitas" Co., Ltd., sundries, etc.

### Birmingham

At Birmingham Police Court, on March 17, a number of local residents were fined under the new by-law for littering the streets with paper.

In the "Birmingham Weekly Post," March 15, a picture of Mrs. F. M. Sharp's Town Hall party is given. Mrs. Sharp entertained 1,000 of the employees of Southall Bros. & Barclay, Ltd., at a whist drive and dance.

The Enolin magnesia toothpaste is being exhibited on the stand of A. S. Price & Co., Ltd., at the National Trades and Industrial Exhibition at Bingley Hall, Miss Ivy Close, who won the £1,000 "Daily Mirror" beauty competition, and whose portrait is used in the Enolin advertisements, is to be in attendance at the stand. The Exhibition was opened at the Bingley Hall on March 17. It will close on May 10.

### Hull

It is reported that Hull is to hold a "civic week" at the Wembley Exhibition in July.

After being open for eighty-eight years, the shop of Metcalfe & Son, chemists, Whitefriargate, Hull, was closed on March 15.

Chemists in the Sculcoates portion of Hull are rejoicing that, although a slight advance in the city rate is forecast, a reduction of 1s. 4d. in the £ for the rates of the parish has been declared this week.

### Liverpool

The frequent return of keen frost this season is prolonging the sale of foot-warmers.

Cutting in the offers of safety razors continues, but it is not a pharmacist who has dropped a 5s. line to 4s. 11d.

The annual tennis meeting of the Liverpool Pharmacy Club will be held at the Royal Institution, Colquitt Street, on March 26, at 8 p.m.

Mr. E. T. Neathercoat (President of the Pharmaceutical Society) is to speak at the Adelphi concert for the Benevolent Fund on April 2.

Some doubt having been cast on the statement (*C. & D.*, March 15) about the improving trade, the representative of a wholesale firm at once named six retailers who are doing good business, and declared that he knew of very few businesses for sale.

Mr. W. H. Saunders (President of the Philomathic Society) entertained its council to dinner on March 17. Instead of calling on his guests to propose toasts, he handed each a paper bearing a subject, coupled with an apt quotation, on which to dilate at five minutes' notice. Last year, Mr. Saunders himself had as his subject "Silence," which he treated by simply bowing.

### Manchester

The Manchester, Salford and District Chemists' Assistants' Association have fixed a ramble for March 23, meeting at London Road Station at 10.0 for 10.15 a.m. (bringing lunch), and travelling by Great Central train to Macclesfield.

D D

In a circular dated March 4, Tidswell, Bailey & Tidswell, manufacturing chemists, Atlas Works, Carnarvon Street, Cheetham, announce that Mr. Lawrence Bailey has retired from the firm, as from January 18. The business will be carried on under the same style by the remaining partners, Messrs. Goodwin Tidswell and Hubert Tidswell.

The annual meeting of the Manchester and District Pharmaceutical Golfing Society was held on March 13. In the unavoidable absence of the President (Mr. A. J. Pidd), the chair was taken by Mr. T. Miller. Mr. A. J. Pidd was elected President; Mr. J. A. Collins, *Treasurer and Secretary*; Mr. A. H. Turner, *Captain*. The following were elected as *Committee*: Messrs. Pidd, Turner, Collins, W. Griffiths, Hughes, Franklin, Edwards and Miller. The proposed fixtures were as follows:—  
 April 2.—President's Prize at North Manchester.  
 April 30.—Manchester v. Liverpool at Liverpool.  
 May 21.—Gibbs' Challenge Trophy at Formby.  
 June 4.—Mr. R. Hough's Prize at Withington.  
 July 2.—Manchester v. Liverpool at Manchester.  
 September 10.—Mr. J. H. Blyton's Prize at Stockport.  
 September 24.—Woolley Challenge Trophy at Reddish Vale.  
 October 1.—President's Side v. Captain's Side at Northenden. Mr. J. Cleworth is giving a prize for the best three aggregate medal cards during the season 1924.

The Bolton Branch of the Pharmaceutical Society visited the University of Manchester on March 12. On arrival, the party assembled in the quadrangle and was welcomed by Mr. James Grier, Ph.C., lecturer in pharmaceuticals, who also acted as guide. After attention had been called to a huge boulder found near the University and ascribed to the Ice Age, the visitors passed into the main building, and spent some time in the Whitworth Hall with its many fine paintings. They next passed to the chemistry lecture room, where among other treasures they saw some of Dalton's manuscripts and plaster casts of Cavendish, Roscoe and others. The science laboratories were visited in turn, one of the most striking things seen being the preparation of colloidal gold. Cavendish's eudiometer was one of the historical objects on view. On the invitation of the pharmacy students, tea was served in the *materia-medica* room. It proved a highly original function, pill tiles being used for plates and stirring rods for teaspoons, while white demy did service for table-cloths. A hearty vote of thanks to Mr. Grier and the students was proposed by Mr. W. R. Bean (President), and seconded by Councilor P. Knott. Photographs were taken by Mr. Cleworth, and in the evening a highly successful outing was rounded off with one of Manchester's many entertainments.

### Sheffield

The election of members from this area to the Executive of the Retail Pharmacists' Union is being more keenly contested than in former years.

At the forthcoming annual meeting of the Sheffield Branch of the Pharmaceutical Society an address will be given by Mr. A. R. Melhuish, member of the Society's Council.

The salary offered by the City Council to the successful applicant for the post of qualified dispenser at the Queen's Road welfare centre is £130 a year. The nurses commence at £150 a year.

The D.D.A. registers in poor-law infirmaries have been undergoing inspection of late, and there seems to be a similar move in connection with retail supplies. Special attention is being paid to the amount of stock on the premises.

On the occasion of the visit to Sheffield of the delegates of the Poor Law Officers' Association, of which Mr. Herbert Antcliffe, member of the Council of the Pharmaceutical Society, is President, they will be received by the Lord Mayor.

### Miscellaneous

**FIRE.**—The premises known as Herbert's Drug Stores, Vauxhall Bridge Road, London, S.W., were involved in an outbreak of fire on March 15. The damage was slight.

**ARCHÆOLOGICAL EXCURSION.**—On March 13, about forty West Ham pharmacists and their friends visited the Church of St. Bartholomew, Smithfield, London, E.C. The party was conducted over the church by Mr. W. H. Irons, a churchwarden, who gave an interesting account of its history, covering rather more than eight centuries.

**"CANCER-CURE" CHARGE.**—At Leeds Assizes, on March 19, David Williams, miner, Doncaster, charged with inflicting grievous bodily harm and with obtaining money by false pretences in respect of an alleged cancer remedy (*C. & D.*, January 12, p. 38), was found to be insane, and was ordered to be detained during his Majesty's pleasure.

**WINE-LICENCE APPLICATIONS.**—The following have been granted wine off-licences for the sale of medicated wines:—Mr. J. C. Arnott, chemist and druggist, Treharris; Mr. C. J. Avery, chemist and druggist, Leicester; Mr. G. R. Cox (proprietor, Long & Co.), Guildford.—The applications of Mr. W. Smith, chemist and druggist, and Mr. A. S. Barnes, chemist and druggist, Rugby, have been refused.

**LISTER MONUMENT UNVEILED.**—A memorial monument to the late Lord Lister was unveiled in Portland Place, London, W.1, on March 13, by Sir John Bland-Sutton, President of the Royal College of Surgeons. The memorial consists of a pedestal of grey Aberdeen granite, upon which is placed a bronze bust of Lord Lister. On the front of the pedestal, facing south, is a bronze group. The design was the work of the late Sir Thomas Brock, and was completed by him in the model stage just before his death.

**COUNTY COUNCIL LICENCE REVOKED.**—On March 14, the public control committee of the London County Council revoked a licence granted to Israel Goldman, St. Martin's Lane, W.C., to carry on an establishment for massage and electrical treatment. The complainant stated that Goldman kept a hairdressing saloon, and that an assistant of his professed to be "a specialist in bacteria," told the complainant on February 20, while he was having his hair cut, that he suffered from "pectrosis," and demanded £5 5s. for treatment with pomade and lotion.

**POISONINGS.**—Accounts of poisonings received since our last report indicate a tendency on the part of the lay Press to withhold names of poisons in reporting inquests. Mr. J. Thompson, public analyst of Reading, is made to say that a death concerning which he was giving evidence was due to the absorption of "a disinfectant"; and in a Leyton case a baby is represented as having been given doses of two "brands" of cough mixture, with the result, in the coroner's words, of being "soothed out of the world." At Bournemouth, Mrs. Aspinwall, widow of a manager to a drug-takers' home—apparently situated in the United States—died from morphine poisoning.

**EMBEZZLEMENT CHARGE FAILS.**—At the Glamorganshire Assizes, on March 13, Charles Herman Pretty, chemists' traveller, Penarth, who was charged with the alleged embezzlement of moneys belonging to his employers, W. A. Wharram, Ltd., manufacturing chemists, Leeds (*C. & D.*, March 8, p. 326), was found "Not guilty," and was discharged. Mr. Justice Branson, in directing the jury, said that it was in the accused's favour that he had had cheques paid to himself, for it left an indelible record, which was available at any time, and his own explanation was that he put them into his own account in order to have ready cash available for expenses.

**LONDON SCHOOL OF HYGIENE.**—Details of a proposed scheme of management for the London School of Hygiene, founded by a gift from the Rockefeller Foundation, were communicated by the Ministry of Health to the Executive Committee of the General Medical Council at its recent meeting. It was suggested that the court of governors, in which the management of the School is to be vested, should consist of thirty-four persons, of whom six were to be nominated by the Council, three by the Ministry, three by the Senate of London University, two by the Seamen's Hospital Society, and one by each of twenty other persons or public bodies. The Council, however, felt itself precluded from making nominations by reason of its statutory position with regard to public health diplomas.

## Scottish News

### Brevities

Mr. W. D. Steel, chemist and druggist, has commenced business at 127 High Street, Dumbarton.

At a conference, on March 11, between the Scottish Committee of Chemical Manufacturers and the representatives of the National Amalgamated Union of Labour, the National Union of General Workers, the Workers' Union, and the Transport and General Workers' Union, the parties were unable to come to an agreement with regard to the wages in the trade, and the conference ended without coming to a decision.

In the course of a discussion at a recent meeting of the Hamilton Merchants' Association as to the advisability of altering the early closing day from Wednesday to Tuesday, Mr. J. Lohar, chemist and druggist, said he did not see how the proposed alteration was going to stop people going to Glasgow, and he thought that the cheap fares and other attractions would still induce people to go to the city. The only solution of the half-holiday question was a petition to Parliament to have the same day recognised by shopkeepers all over Scotland. It was finally agreed to make no change.

At a meeting of the Royal Society of Edinburgh, on March 17, Professor F. O. Bower, the President, announced that the Keith Prize for the period 1921-1923 had been awarded to Professor J. W. Gregory, F.R.S., Professor of Geology in the University of Glasgow, and that the Neill Prize for the period 1921-1923 had been awarded to Professor J. McLean Thompson, M.A., D.Sc., F.L.S., Professor of Botany in the University of Liverpool. Among the papers read was one on "Size in Relation to Internal Morphology," by Mr. C. W. Wardlaw, dealing specially with the vascular systems of *psilotum*, *mesipteris*, and *lycopodium*.

### Fife

Mr. C. Stewart, chemist and druggist, Kirkcaldy, has been elected President of the local Rotary Club. Mr. Stewart holds a similar office in connection with the Kirkcaldy Photographic Society, before which body, on March 18, he delivered an instructive lecture on "Photographing Flowers and Still Life."

At the annual meeting of the Pittenweem Bowling and Tennis Club, on March 18, a presentation of a grandfather clock was made to Mr. A. Mungall, chemist and druggist, as a marriage gift and in appreciation of his services as honorary secretary, a position the recipient has held for thirteen years, and to which he was re-elected.

### Glasgow

Glasgow Valuation Appeal Committee has decided that electric signs are rateable.

A scheme for facilitating the handling of letters, similar to that in operation in London, is to be introduced in Glasgow. The city will be divided into district delivery areas and there will be a numeral in addition.

Glasgow magistrates in committee, on March 11, again considered the resolutions drafted at the recent conference in Dundee regarding the sale of methylated spirit. Three points were approved—the scheduling of methylated spirit as a poison, production of licence or certificate from the magistrates as a condition precedent to the granting of an Excise licence for the retail sale of methylated spirit, and the recovery by the police as well as by the Excise authorities of penalties for the illicit sale of the spirit. It was also decided to join with other local authorities in sending a deputation to the Scottish Office to request that legislative effect should be given to the proposals.

EXIT "TOUCH-AND-GO."—The minutes of the recent meeting of the Dental Board of the United Kingdom contain the text of a Home Office letter, issued to chief constables, pointing out that itinerant quacks are believed to be still offering to extract teeth "in market places and elsewhere." Such persons, the letter states, should be warned and reported to the Registrar of the Board.

## Irish News

### Brevities

Mr. J. E. O'Neill, J.P., registered druggist, Maghera, served on the Grand Jury, at the opening of the Assizes for the County of Londonderry, on March 14.

Considerable damage to stock and fittings was caused recently in the Medical Hall, owned by Mr. McClintock, Letterkenny, by a bull which had entered the shop.

The Limerick Co. Infirmary Committee has accepted the tender of Mr. P. Liston for drugs, dressings and surgical appliances.

Owing, it is alleged, to the dismissal of two employees, a number of employees of Hugh Moore & Alexanders, Ltd., wholesale druggists, Dublin, went on strike. The strikers are members of the Irish Transport and General Workers' Union.

Mr. W. Thorpe, analyst, reported to the Dundalk Guardians that of three samples of medicines from Dromiskin dispensary one was deficient in nitrous ether. In sending fresh supplies Boileau & Boyd, Ltd., wrote that spirit of nitrous ether is extremely volatile.

At Lisburn Petty Sessions, on March 13, Mr. George McElroy, stipendiary magistrate, introduced and welcomed Mr. H. G. Pring (managing director of Grattan & Co., Ltd., chemists, Belfast), a new magistrate, and said he wished to express his admiration of Mr. Pring's splendid work as commandant of the special police.

### Belfast

Mr. T. W. McMullan, M.P. (Thos. McMullan & Co., wholesale druggists), returned recently to Belfast after a visit to South Africa.

At the Police Court, on March 13, a woman named Jane Huston was fined 21s. and costs for making a false statement to a chemist, a retailer of methylated spirit, and with using methylated spirit for the purpose of drinking.

All persons, including chemists deprived of the right to sell wines and claiming to be entitled to compensation by reason of the operation of the Intoxicating Liquor Act (Northern Ireland), 1923, are required to lodge particulars of their claims with the Secretary of the Claims Tribunal at 15 Donegall Square West, Belfast, not later than April 14, 1924.

## Business Changes

MR. N. L. LLOYD, chemist and druggist, is taking over the business of Mr. H. J. Davis, 27 Glenthorne Road, Hammersmith, London, W., on April 1.

COTY (ENGLAND), LTD., is shortly to open a wholesale showroom at Walmar House, 298 Regent Street, London, W. The general manager is Mr. C. C. Walli, chemist-perfumer, whose father was a member of the drug trade in London for many years.

MR. W. E. JONES, chemist and druggist, Rhos, Wrexham, is closing his business in Market Street after March 25, but will continue his establishment in Hall Street.

MR. W. MASON has taken over the branch business of Mason & Booth, Ltd., chemists, 44 Toll Gavel, Beverley, as from March 12, and will carry it on as Mason's Drug and Photographic Stores.

THE business at 95 Northumberland Street, Newcastle-on-Tyne, formerly carried on under the style of Milburns, Ltd., chemists, is now being personally conducted by Mr. T. R. Milburn, chemist and druggist.

MATTHEWS & WILSON, LTD., manufacturing chemists, 6/8 Cole Street, Borough, London, S.E.1, are extending their business by taking in the adjoining premises. This will enable them to cope with the increasing demands of a growing business.

## South African News

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is supplied weekly to members of all the Chemists' Societies in South Africa.

### Cape Province

THE MEDICINE TAX.—In the Union House of Assembly on February 15 Major Hunt asked the Minister of Finance: (1) What was the date on which the recent speech of the Minister of Lands was made at Port Elizabeth in which he made reference to the incidence of the medicine tax imposed by the Customs and Excise Duties Amendment Act No. 23 of 1923; (2) What is the number of the Government notice, and on what date was it first published, which exempted some twenty-three household remedies from the incidence of the tax; and (3) What is the number of the Government notice, and on what date was it published for the first time, which exempts remedies supplied under prescription of a medical practitioner from this tax? Mr. Burton replied: (1) I have no information as to the date on which my colleague made the speech referred to. (2) and (3) Notices 1,615 and 1,641, respectively, published in the Government "Gazette" of October 5, 1923. Mr. Munnik called attention to a reply recently given by a Minister to a question which he had filed in reference to a remark made in a speech by Col. Reitz in November last, and reported in the "E.P. Herald," to the effect that some twenty odd household remedies were to be exempted. He asked whether the Minister was not now wilfully misleading the House. (Cries of "Order.") Mr. Speaker called upon the hon. member "to withdraw the expression." Mr. Munnik said that he was prepared to withdraw the word "misleading," and he would ask the Minister whether he was giving the House wrong information. The matter then dropped.

In the Union House of Assembly on February 25, Mr. Stewart asked the Minister of Finance: (1) What was the cost of the administration and collection of the patent medicine tax up till December 31, 1923; (2) what was the amount of money collected from the patent medicine tax by sale of stamps up till December 31, 1923; (3) what was the amount of money received from voluntary fines from traders as distinct from sales of stamps up till December 31, 1923? The reply was: (1) Nothing beyond the cost of printing the stamps. (2) £53,921 6s. 11d. (3) £1,676 17s. 9d. This represents fines and recoveries of duties on medicines known to have been sold unstamped.

### Orange Free State

MR. JAMES REID, whose portrait this is, went out to South Africa twenty-two years ago and joined Heynes, Mathew, Limited, of Cape Town. In 1902 he went to the firm's Bloemfontein branch, where he stayed until the end of February this year having acted for the last twenty-one years as manager. Mr. Reid passed the Free State Qualifying examination as a chemist and druggist in 1912. For some years he has been one of the examiners appointed by the Free State Medical and Pharmacy Board to conduct the half-yearly examinations. Mr. Reid has excelled in many branches of sport, notably at Association football and golf, and was at one time recognised as one of



MR. JAMES REID

the best "half-backs" in South Africa. He is also a prominent freemason, having for the last year been the Worshipful Master of the Emerald Lodge, Bloemfontein, a lodge holding its charter under the Grand Lodge of Ireland. Mr. Reid is about to start in business on his

own account in Maitland Street, Bloemfontein, having obtained premises on the prominent site formerly occupied by Leviseur & Co., and considering that he is known to everybody worth knowing in Bloemfontein he should quickly build up a prosperous and extensive business for himself. For many years Mr. Reid has been a prominent member of the Free State Pharmaceutical Society and is a member of the Bloemfontein Club.

BUSINESS CHANGES.—Mr. S. R. Noyses, who has conducted a successful business at Parys for the last ten years, has sold out to a Johannesburg firm, and intends proceeding to England with his wife towards the end of March.—A new pharmacy has been opened at Koffyfontein, O.F.S., by Mr. J. C. Solomon, who hails from Worcester, in the Cape Province. Koffyfontein is a rising diamond mining town fifty or sixty miles distant from Kimberley, Cape Province, and the prospects should be good for an enterprising man.

### Rhodesia

CHEMIST PRACTISING AS DENTIST.—A case has just been concluded in the Magistrates' Court at Ummuma in which Mr. Alfred Wilkins, chemist and druggist, was charged with contravention of a subsection of the Dentistry Ordinance. The evidence for the prosecution was to the effect that accused had extracted teeth and taken wax impressions for false teeth, which were forwarded to Cape Town. In defence the accused said he had always explained he was not a dentist, and had notices in his shop and on his stationery to that effect. The teeth were supplied by a Cape Town firm. He only took impressions. For over twenty years he had extracted teeth and taken impressions in the Union and Rhodesia. He had been prosecuted in that Court some years ago, but had been discharged, and took it that was sufficient for him to continue. No charge was made for extractions, but customers were always advised to purchase a bottle of mouth-wash for safety. A fine of £20 was imposed. An appeal is to be made.

## Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

### Monday, March 24

Royal Society of Arts, John Street, Adelphi, London, W.C., at 8 p.m. Dr. T. Slater (Director of Research, British Photographic Research Association) on "Certain Fundamental Problems in Photography" (I).

### Wednesday, March 26

Pharmaceutical Society of Great Britain (Glasgow and South-Western Scottish Branch), Pharmacy Club Rooms, 165 Hill Street, Garnethill, Glasgow, at 3 p.m. Annual meeting.

### Thursday, March 27

National Association of Women Pharmacists, Hotel Russell, London, W.C., at 8.30 p.m. Dr. Stanley White on "The Ductless Glands."

North London Pharmaceutical Association, Canadian Hall, Tottenham. Social and dance.

Pharmaceutical Society of Great Britain (North-East London Branch), St. John's Institute, Urswick Road, Hackney, at 7 p.m. Annual social. Musical programme, progressive games, and dancing.

West Ham Association of Pharmacists.—Annual meeting.

The Chemical Society, Burlington House, Piccadilly, London, W.1, at 4 p.m. Annual meeting. The President (Prof. W. P. Wynne), D.Sc., F.R.S., will deliver an address. Informal dinner at the Hotel Cecil, Strand, W.C.2, the same evening at 7 for 7.30 p.m.

Royal Institution of Great Britain, 21 Albemarle Street, London, W.1, at 3 p.m. Sir Ernest Rutherford F.R.S., on "Properties of Gases in High and Low Vacua" (IV).

### Friday, March 28

Royal Institution of Great Britain, 21 Albemarle Street, London, W.1, at 9 p.m. Hugh McLean, M.D., on "Insulin."

LIVERPOOL CHEMISTS' ASSOCIATION.—The annual smoking concert will be held on April 2 at the Adelphi Hotel at 7 p.m. Proceeds in aid of the Benevolent Fund of the Pharmaceutical Society.

NORTH LONDON PHARMACEUTICAL ASSOCIATION.—The annual dinner will be held at the Restaurant Frascati, Oxford Street, W.1, on April 3, at 7 p.m. Reception at 6.30 p.m. Tickets from Mr. H. Skinner before March 28.

## Legal Reports

**Dangerous Drugs Act Case.**—At Boston Borough Police Court, on March 12, Mr. Charles Fowler Cooke, chemist and druggist, West Street, appeared in answer to a summons charging him with having supplied to Rebecca Thompson, Freiston, "a certain drug," she not being a person authorised to be in possession of such drug, and with selling to Mrs. Thompson a poison contained in a bottle not labelled with his name and address, the word "Poison," and the name of the poison. Mrs. Thompson was charged with being in unlawful possession of the drug. She pleaded "Guilty," and Mr. Cooke pleaded "Guilty" to selling "medicinal opium." The chief constable said that the prosecution was undertaken with the sanction and approval of the Home Office. The contents of the bottle had been sent to the Clinical Research Association and certified to contain opium. Mr. Cooke, when seen by the police, had produced a doctor's certificate, but admitted that he had filled in certain dates. Dr. D. C. Robertson, called as a witness, said he had given a certificate authorising the sale, but this was to a woman named Stones, not to the defendant Thompson. It was usual to give a certificate for each occasion of sale, and that was his own practice; but the dates on the paper he had seen were not in his writing. Mrs. Thompson said she obtained the laudanum for her mother, who could not come into Boston. Mr. Cooke had put a label on the bottle, but she had torn it off. The chairman said the magistrates considered the first charge proved quite clearly, and fined Mr. Cooke £2, with £2 18s. 6d. costs. The second summons against him was dismissed. Mrs. Thompson was fined 20s., with 6s. costs.

**Magnesium Carbonate in Gregory's Powder.**—At Hungerford, on March 12, Mr. Henry Fearnley Taylor, chemist and druggist, Bridge Street, was summoned for having sold a compound drug, "Gregory powder," which was not composed of the ingredients demanded. An inspector stated that he visited the defendant's shop and purchased 1 oz. of "Gregory powder," paying 7d. The certificate of the public analyst stated that the powder consisted of 66 per cent. of light magnesium carbonate, 22 per cent. of rhubarb root, and 12 per cent. of ginger. Mr. Taylor, giving evidence, said that when the inspector purchased the powder he told him that he did not like to sell it, as it had not been bought in his time, he having taken it over from his father. He did not know what it was made of, and had never sold any. Carbonate was frequently used in the preparation of Gregory's powder. The effect was practically the same, and the dose was the same. He produced the British Pharmacopœia, 1914, and also the British Pharmaceutical Codex, 1923, which gave a formula for an "improved Gregory's powder" containing magnesium carbonate. Mr. Angus Marshall, for the defence, submitted that the use of magnesium carbonate in such powders was now quite a recognised standard in spite of that laid down by the Pharmacopœia of 1914, there having been a change of view since that was compiled. The sample was practically identical with that laid down by the Codex. The Bench were of the opinion that no offence had been committed, and the case was dismissed.

**Validity of a Contract Disputed.**—In the Chancery Division of the High Court, London, on March 13, 14, 18 and 19, Mr. Justice P. O. Lawrence continued the hearing of the action brought by the York Glass Co., Ltd., Fishergate, York, against Mr. Thomas Jubb, Jack Lane, Hunslet, Leeds, for specific performance of an agreement dated October 16, 1922, to purchase the plaintiffs' freehold glassworks, plant and stock for £54,600 (*C. & D.*, March 15, p. 364). The defendant pleaded that he was of infirm mind to the knowledge of the plaintiffs at the time and unable to manage his affairs reasonably and properly. He also alleged that the property was only worth £8,000. The plaintiffs denied that they knew the defendant to be of infirm mind. Further evidence was given for the plaintiffs. Dr. Robert Percy Smith, Leeds University, a mental specialist, said that persons suffering from general paralysis of the insane often had remissions of symptoms, and it was possible that Mr. Jubb

might have gone through a business interview without arousing the suspicion of a stranger as to his sanity. Mr. A. H. Barron, chartered accountant, York, auditor to the plaintiff company, said that in the last few years there was a cumulative trading loss of £29,950. He attributed this to inefficient management and the coal strike. He was appointed receiver for the debenture holders in May 1922, but as the loss continued he decided on September 29, 1922, to close down the works. An offer of £50,000 was made by Mr. Jubb, and on October 13 witness met him at the Queen's Hotel, Leeds, when they tossed up to see whether the price should be £54,600 or £55,000, and witness lost. That was the only time he saw Mr. Jubb. There was nothing abnormal about him. When the business was closed down, the plaintiff company had considerably more orders than they could supply—sufficient to justify them in carrying on if they could have done so at a profit. Mr. C. J. Pratt, late managing director of the York Glass Co., Ltd., managing director of the National Glass Co., said that the latter acted as selling agents for the former on commission. In 1917 he was one of the largest glass importers in the United Kingdom. At that time, owing to the shortage of freight, the importation of glass had practically ceased, and the Minister of Munitions asked him why he did not interest himself in the manufacture of glass in England according to modern methods, and suggested that he should approach the York Glass Co. In 1918 witness purchased the whole of the shares in the York Glass Co. for £34,000, and set about modernising the processes of the factory. Up to the autumn of 1921 there was a boom in the glass trade. Until the York Glass Co. closed down, the National Glass Co. had plenty of orders for them. Witness never had any suspicions that Mr. Jubb was mentally incapable when he visited the works. His speech was perfectly clear, and his reasoning quite good. Cross-examined: When he took over the York Glass Co., he had no intention of cutting out the manufacture of druggists' bottles, but only small orders for special bottles, which did not pay. These were made by hand. Mr. J. C. Stainthorpe, chartered accountant, who acted as representative for the receiver at the glassworks, stated that the average wages bill was £250 per week. The capacity of the machines working seven days a week was over 3,000 gross of bottles. The factory was working at full pressure on the day it was closed down, and there were more than sufficient orders to carry on; but it could not be carried on at a profit, because there was inefficiency in the technical management, and there had been an accident to the compressor plant. H. J. Matson, foreman at the glassworks, deposed that Mr. Jubb questioned him about the furnaces, and how long it would take to restart the factory. Mr. Jubb appeared to be quite a business man. Mr. John Foord, who valued the works for the plaintiffs in 1920, agreed in cross-examination that the boom in the glass-bottle trade was then at its height, and that when Mr. Jubb bought the slump had set in. He did not agree that many of the buildings were now so dilapidated as to be valueless. At the present moment the factory was properly equipped, and suitable in every way for the mass production of bottles by the automatic machinery installed prior to the purchase by Mr. Jubb. Mr. Percy Pemberton, receiver in lunacy, stated that the capital value of Mr. Jubb's estate was £29,000 to £30,000. This concluded the evidence.

Mr. Preston, K.C., for the plaintiffs, said that his clients felt the charges made against them very keenly, and welcomed the very full and complete investigation that had been made into all the circumstances. There was no justification for the suggestion that the plaintiffs entered into a contract with a man they knew to be insane, overreached him, and sold him at an absolutely ridiculous price works they knew to be derelict. Counsel asked his lordship to say that the plaintiffs were wholly innocent of the charges made against them, that those charges ought never to have been made, and that having been made they should not have been persisted in. Dealing with the question of price, counsel submitted that the expert witnesses called for Mr. Jubb gave no assistance to the Court, as none of them had been instructed to value the plant and machinery.

## Conspiracy and Falsification Charge

At the Old Bailey, London, on March 13, 14, 17, 18 and 19, Mr. Justice Swift and a jury completed the hearing of the case in which Noel Blake Ducker (27), company director, pleaded "Not guilty" to an indictment containing ten counts which charged him with conspiring with his brother, Philip Walley Ducker, to defraud the Inland Revenue, and with forging a receipt evidencing the payment of an amount of \$39,315. The indictment also set forth that, being a director of Inecto, Ltd., manufacturers of hair dyes and dealers in chemicals, he falsified certain books by inserting entries of payments and delivering to the inspector of taxes false accounts for the purpose of income-tax and excess profits duty (*C. & D.*, March 15, p. 365). Mr. Travers Humphreys and Mr. Roland Oliver appeared for the prosecution; the accused was defended by Sir Edward Marshall Hall, K.C., Mr. H. D. Roome, and Mr. R. F. Levy. A partner in the firm of Moore, Stephens & Co. said that his firm helped with the books of Inecto, Ltd. When that company was wound up there was a claim by the Inland Revenue for approximately £15,000. Sir Edward Marshall Hall suggested that, when the company was wound up, several actions were brought against it because of the alleged damage caused by hair dye supplied by the company to individuals. The witness agreed, and added that the amounts payable in such actions could be set off against the sum due to the Inland Revenue. M. Boudou, Conduit Street, W., said that he founded Inecto, Ltd., in 1911, and three years later sold the concern to Mr. P. W. Ducker. In 1919 he also sold the Rapidot formulas to him for £6,000. The recipe for Rapidot was totally different from that of Inecto. Mrs. P. C. Ward stated that she was engaged as an "assistant receptionist" by Inecto, Ltd., in 1919. The offices of the company at North Audley Street were well equipped, and there were salons where ladies could receive treatment. Mr. Travers Humphreys said that according to the literature of Inecto, Ltd., the cost of treatment was £3 3s., or a yearly contract of £10 10s. The witness said they were not allowed to take such a small fee as £3 3s. The lowest fee was £6 6s. The salon receipts were entered into a special book, and the money was paid into P. W. Ducker's private account. She did not enter any of the receipts in the books of the company. Mr. G. Beck, of the special inquiry department of the Inland Revenue, stated that the invoices he found on the files regarding the alleged transactions with F. Clayton Herbert appeared to be in the handwriting of P. W. Ducker. Counsel: Who profited by those transactions?—I should say, on the face of the matter, that it was Philip Walley Ducker. The witness added that he was unable to say who put the invoices on the file. Counsel: Can you see any reason why the defendant should put them on the file when his brother who benefited was there and able to do it himself?—I can only suggest that, if a thing of this sort is being done, it is better to do it by somebody else if you can trust them.

### CASE FOR THE DEFENCE

At the conclusion of the case for the prosecution the defendant entered the witness-box. He stated that his brother Philip was eight years older than himself, and employed him in Inecto, Ltd., in 1914, at a salary of 30s. a week. Prior to taking over the company, Mr. P. W. Ducker was employed by M. Boudou. His brother obtained the rights of Inecto about 1914, and opened premises in South Molton Street. At the outset only he and his brother worked in the business. They had no factory, and the business was conducted in two tiny rooms. From first to last he had had nothing whatever to do with the books of the company. He never saw the books belonging to Inecto, Ltd., until they were shown to him at the offices of the official receiver. From October 1914 until February 1919 he was in the Army, and had nothing to do with the business of the company. Counsel for the defence pointed out that the books showed that the witness had attended various board meetings

after 1914, and the accused said that they were not correct. When he returned to this country in the early part of 1919, the business had been removed to North Audley Street. A "fish-and-chip" shop was taken over and converted into a factory. For a time witness was in charge of the factory. Up to August 1919 he had nothing to do with the business side of Inecto, Ltd. At that time his brother went to America, giving witness instructions as to how the business was to be conducted during his absence. At one time quite a "colossal" amount of Inecto was sold. Apparently witness had been a director of Inecto, Ltd., for years, but was unaware of that fact. He knew that a second preparation was bought from M. Boudou, and his brother told him how the payments were to be continued for the formulas. His brother told him that he had been in the habit of paying M. Boudou through his private account. His reason for that was that he did not wish the staff, or anybody else, to know that the money was going to M. Boudou. Further, his brother did not wish people to know how much was paid for the formulas. Counsel: Had you any idea that what was being done was for the purpose of defrauding the Revenue?—Defendant: No, certainly not. The defendant added that until the present proceedings were commenced he had never seen the Clayton Herbert account. The first time any question arose was in January 1920, when the accountants communicated with him. He replied to that letter saying that he was communicating with his brother asking him to write to the accountants. He wrote to his brother, and the accountants sent out a circular letter to all the customers of the company, with his consent, asking for a statement of their dealings. Witness denied that Inecto was sold in Italy to any extent. A decree was passed by the Italian Government prohibiting it. The Judge: Was that because they realised how dangerous it was? Sir Edward Marshall Hall: I believe when it was first sent a bottle broke, and the Italian Government got into a great state about it. They passed a decree prohibiting its importation, and very nearly sent their prime minister over here about it. Witness said that from first to last he had never made any false entries or caused any false entries to be made in the books of Inecto, Ltd. Sir Edward Marshall Hall: Have you entered into any conspiracy with your brother to defraud the Revenue?—Witness: Certainly not. Cross-examined by Mr. Travers Humphreys, the defendant stated that when Rapidot took the place of Inecto the price was increased from 10s. to 12s. 6d. per bottle. Old pamphlets used for Inecto were used for Rapidot with the name changed. Witness gave the following figures with regard to his income:—1919, £203; 1920, £1,375; 1921, £2,016; 1922, £4,000; and 1923, £8,000. In the latter years his income was derived from Rapidot and Phyllis Earle, Ltd. Counsel: With regard to Mrs. Ward's evidence, do you regard it as an entire invention?—Most of it. Witness added that the salons were there for demonstrating to hairdressers and others how the preparation was used. He said, "People used to come up from all over the country to have the thing explained." At the close of the case for the defence, the count in the indictment alleging the forgery and uttering of a receipt and an invoice for \$39,315 was withdrawn.

Sir Edward Marshall Hall addressed the jury at some length on behalf of the defendant. Counsel declared that there was no evidence that Mr. Ducker had anything to do with the business side of Inecto, Ltd., until January 1920, which was subsequent to the matters complained of by the prosecution. The income-tax authorities saw on the company's file what purported to be a receipt for the payment of \$39,000 to Clayton Herbert. The receipt was signed "F. Clayton Herbert, p.p. P.W.D." and an English penny stamp was used. That receipt was pure bluff, and was placed on the file when a visit from the authorities was anticipated. It was Philip Walley Ducker who was interested in the transaction, and not the defendant. Philip Walley Ducker, as the case had shown, was the "king of bluff." The receipt had since disappeared, and the person interested in its disappearance was not the defendant, but his brother. The defendant, when inquiries were made, acted on the advice

of the accountants, and he then got a flood of light, which showed that his brother had been swindling the Inland Revenue. The defendant's brother was the person who, by sheer bluff and advertisement, had got the big business of Inecto going. Hundreds of pounds were spent on advertisement, and whatever was expended on publicity came back if the advertiser had a good thing to sell. They knew that M. Boudou sold Inecto because he was afraid of it, but the public did not know that. The prosecution had not called Clayton Herbert, and had not legally proved that the alleged transaction was a bogus one. There were claims made against Inecto, Ltd., by people who had received treatment. One judgment for £200 was obtained against the company, and other actions were threatened. "It was not an Inecto, but an Infecto," said Sir Edward. Subsequently the Rapitol formula was purchased. The frauds on the Revenue were successfully carried out by Philip Walley Ducker, who had rendered fraudulent returns for his company and personally. Inecto, Ltd., had to go into liquidation, as there were thirty-two actions pending. That spelt ruin, and all the accused bought from the liquidator of the company was the Inecto trade-mark in order to prevent it being used by others.

#### SUMMING UP AND ACQUITTAL

The judge, in his summing up, said that the prosecution alleged that for a considerable time a series of frauds had been perpetrated on the Revenue in connection with the business carried on by Inecto, Ltd. It was declared that the Revenue had been defrauded of the just amount due to it for the payment of income-tax and excess profits' duty. The defendant's brother, Philip Walley Ducker, was a fugitive from British justice. Philip Walley Ducker had been the managing director of Inecto, Ltd., and the defence had not hesitated to call him a swindler. The question was whether it had been proved to the satisfaction of the jury, beyond reasonable doubt, that the defendant was a party to the frauds so as to make him answerable in law, on the ground either that he conspired with his brother, or that he himself falsified books, or caused false entries to be made in books. The prosecution, his lordship pointed out, had admitted that Philip Walley Ducker was undoubtedly the principal in the matter, and he was the dominating personality in the company, but it was alleged that there came a time when he could not act by himself, and that he was then assisted by the defendant. Philip Walley Ducker was probably a blustering, bullying, egotistical person who dominated everybody with whom he came in contact. That, however, was not an excuse for anyone committing crime at his instigation. So far as the salon receipts were concerned, the defendant had declared that he knew nothing about them.

After a short retirement the jury found the defendant "Not guilty" on all the counts of the indictment. Mr. Roland Oliver stated that there was a further indictment on the file, but the facts were the same as those which had been already investigated by the Court. In the circumstances, the prosecution would offer no evidence against the accused on that indictment. At the direction of the judge, the jury returned a verdict of "Not guilty" against the accused on that indictment, and the defendant was discharged.

ACCORDING to official figures, the cost of living, on March 1, was about 78 per cent. above that of July 1914, compared with 79 per cent. a month ago and 76 per cent. a year ago.

LENINGRAD.—The Postmaster-General has been informed by the Russian Post Office that the name of the city of Petrograd has been changed to Leningrad, and correspondents are advised to address letters for that city accordingly.

WOMEN STUDENTS IN GERMANY.—The number of women studying at German universities shows a very considerable increase. Of the 8,591 women immatriculated at the various universities, 183 were studying pharmacy, in addition to 36 women pharmacists attending courses in the technical high schools.

## New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

U.N. LTD. (P.C.)—Capital £100. Objects: To carry on in the United Kingdom or elsewhere the business of general manufacturers, buying, selling, house and estate agents, exporters, importers, chemists, chemical manufacturers, etc. The directors are: A. W. Hill, A. A. D. Land, and J. H. Asdell. R.O.: 42 Berners Street, London, W.

W. G. PIERCE'S PHARMACY, LTD. (P.C.)—Capital £1,000. Objects: To carry on the business of a chemist, druggist and pharmacist, carried on by W. M. Pierce, at 172 Baker Street, Enfield. The directors are: W. M. Pierce, Mrs. Katherine T. Pierce, and L. MacLeod. Solicitors: P. Geo. and F. L. Vanderpump, Enfield Town.

GENERAL RADIOLOGICAL AND SURGICAL APPARATUS CO., LTD. (P.C.)—Capital £25,000. Objects: To carry on the business of manufacturers, importers and exporters of and dealers in surgical, medical or dental goods, instruments and appliances, hospital supplies and chemists' and druggists' goods, etc. Solicitors: Herbert Oppenheimer, Nathan & Vandyk, 1 Finsbury Square, London, E.C.

MASTER PAINTERS' PAINT MANUFACTORY, LTD. (P.C.)—Capital £10,000. Objects: To carry on the business of paint, colour and varnish manufacturers and merchants, druggists, drysalters, manufacturers of and dealers in painting and household brushes, manufacturers, refiners, importers and exporters of and dealers in oils, oleaginous and saponaceous substances, dyes, tinctures and dyes, household, toilet and chemical requisites, etc. The directors are: A. Carlton and R. C. West. R.O.: Cheam House, Exeter Road, Bournemouth.

ASSOCIATED CLINICAL AND ANALYTICAL LABORATORIES, LTD. (P.C.)—Capital £500. Objects: To carry on the business of examiners and analysers of substances or liquids given off by, or coming from, or part of, the human or other body, alive or dead, or from or part of any other substance or liquid, or from or part of air, or any kinds of gas, with a view to detect the presence or absence of disease, infection or abnormal conditions, or to increase medical or surgical knowledge, etc. R.O.: 9 Harley Mews South, London, W.1.

WARD & GOLDSTONE, LTD., have declared interim dividends at rate of 7 per cent. per annum on ordinary and preference shares.

VENESTA, LTD., have declared a dividend at rate of 7 per cent. per annum, less tax, on preference shares for six months ending March 31, 1924.

BRITISH GLASS INDUSTRIES, LTD.—The report for the year to the end of December, 1923, discloses a loss of £65,200, and the directors propose to reorganise the capital.

F. J. RYLAND & CO., LTD.—On the petition of the Combined Chemical Association, Ltd., an order for the compulsory winding up was made on March 18.

BOOTS PURE DRUG CO., LTD., have declared a dividend on the ordinary shares for the quarter ending March 31, 1924, at the rate of 9 per cent. (less tax), making 36 per cent. (less tax) for the year.

UNITED ALKALI CO., LTD.—The accounts for the year ended December 31, 1923, show a gross profit of £723,302 and a net balance after payment of expenses and taxation of £452,845. Debenture interest absorbs £100,513 and £15,000 is transferred to Debenture redemption fund, leaving £337,332, while £86,734 was brought forward. The sum of £100,000 is transferred to reserve, making this £850,000, and a final dividend of 6 per cent., making 10 per cent. for the year, is proposed. The directors state that the demand for the company's products has been generally satisfactory, and the works have been fairly well employed, thus reducing the costs of production.

## Dental Board of the United Kingdom

THE two recent meetings of the Dental Board and its Executive Committee were chiefly occupied with routine matters; but there were a few items of general interest, and one of them proved to be of immediate importance. It may be remembered that a "Warning Notice" with reference to certain forms of professional misconduct was circulated by the Board during the past year; this notice "did not, and was not intended to, furnish a complete list of all the offences which might be punished by erasure from the Register." An additional communication, amplifying the former one, is to be issued this year with the particulars of the election. The new notice, entitled

### WARNINGS,

commences with an intimation that practitioners must now be expected to be aware of the attitude of the Board to unprofessional conduct, and must not count on an opportunity being given them, as in previous disciplinary cases, to amend their conduct. The following are the chief passages in the notice:—

**I.—Covering.**—"Covering" includes permitting any unregistered person, whether a dental student or not, to attend to patients for any purpose whatever, including attendance in connection with the fitting of artificial teeth.

### II.—Advertising to Procure Patients.

(a) **Signs.**—The Board have adopted the following resolution:—

"The Board view with disapproval the use or exhibition of any sign, other than a sign which in its character, position, size, and wording is merely such as may reasonably be required to indicate to persons seeking them the exact location of, and entrance to, the premises at which the dental practice is carried on."

This resolution covers the use of large letters or notice boards; of such words as "Teeth," "Painless Extractions," or the like; of notices in regard to practices on premises other than those in which a practice is actually carried on; of show cases; of large lighted signs, especially if of an intermittent nature; and the display of numerous exhibits or plates setting forth a practitioner's name and/or profession. *Any advertising for the purpose of procuring patients renders a practitioner liable to be summoned to appear before the Board.*

(b) **Newspaper Announcements.**—The Board have adopted the following resolution:—

"The Board draw the attention of dentists to the fact that the publication of any announcement for the purpose of informing a dentist's patients of his change of address, or the days upon which he will make his periodical visits to any particular town or place, may be regarded as an advertisement for the purpose of procuring patients, if it includes the word 'Dentist' or any other description or statement or word or initial or woodcut or engraving or other matter indicating his profession or practice."

This resolution covers the insertion of all paragraphs and notices in the Press, and also the announcement of names in the trading lists of co-operative and other societies and clothing clubs, in trade tickets, prize lists, and the like; and the display of announcements at places of public entertainment.

(c) **Circulars.**—The issue of circulars giving information as to a change of professional address or hours of attendance may be regarded as advertisements for the purpose of procuring patients if not sent under cover, or if sent to persons who have not been *bona-fide* patients of the practice.

**III.—Titles.**—Attention is called to Section 4 of the Dentists Act, 1921, which is as follows:—

4. **Use of titles and descriptions.**—A person registered under the principal Act—

(a) shall, by virtue of being so registered, be entitled to take and use the description of dentist or dental practitioner;

(b) shall not take or use, or affix to or use in connection with his premises, any title or description reasonably calculated to suggest that he possesses any professional status or qualification other than a professional status or qualification which he in fact possesses and which is indicated by particulars entered in the Register in respect of him.

**IV.—Panel Practice.**—Many complaints have been received that practitioners put up notices "Panel patients received here," or words to that effect. The Board consider that such notice constitutes an advertisement for the purpose of procuring patients.

**V.—Convictions.**—One practitioner appeared before the Board on having been convicted of a misdemeanour, viz., of drunkenness. The Board take a grave view of convictions for this offence, and the practitioners concerned render themselves liable to . . . have their names erased from the Register. Four practitioners have appeared before the Board on having been convicted of felonies . . . their names were ordered to be erased from the Register.

### PROPAGANDA

The report of the Propaganda Committee, adopted with authorisation to proceed in the matter, contained the following recommendations:—

1. That the educational authorities be approached with a view to ascertaining whether instruction in oral hygiene can be given in primary and secondary schools. In the event of this instruction being approved, the Committee would be willing to formulate a suitable course of instruction.

2. That measures be taken to impress upon Friendly Societies having juvenile members the advantages attaching to the provision of dental benefit to juvenile members.

3. That the advantages of dental clinics in large works or factories be impressed on employers of labour.

4. That the Ministry of Health be consulted as to whether there is any possibility or prospect of providing dental treatment for necessitous young persons between the ages of fourteen and eighteen years.

5. That the British Broadcasting Company be advised that it would be expedient to include in their programme "talks" on the importance of the care of the teeth.

6. That inquiries be made regarding existing films bearing on oral hygiene and the possibility of procuring their exhibition.

### MEDICAL MEN AND TITLES

At the autumn meeting of the Board in 1922 (C. & D., II, 1922, p. 861), the chairman's address included a passage indicating that a medical practitioner whose name was not on the Dentists Register would not be permitted to call himself "Surgeon Dentist." The minutes of the recent meetings, however, show that the British Dental Association has since inquired as to the use of the title of "Dental Surgeon" by registered medical practitioners practising dentistry, whose names are not on the Dentists' Register, and that a similar question was addressed to the General Medical Council by the British Medical Association. By direction of the President the following reply was sent:—

"Section 3 of the Dentists Act, 1878, is repealed by the Dentists Act, 1921. Section 1 (3) of the Act of 1921 provides that nothing in the Section shall operate to prevent the practice of dentistry by a registered medical practitioner, and Section 4 of the same Act restricts the use of titles by persons registered under the principal Act. The President's view is that, as a medical practitioner is not registered under the principal Act, he is not bound by the restriction in Section 4, and there is nothing whatever to prevent such a man from calling himself 'Dentist,' or 'Surgeon Dentist,' or 'Dental Surgeon.' The use of the last-named, however, would be more in conformity with medical practice, because it would be similar to descriptions such as 'Ophthalmic Surgeon' or 'Orthopaedic Surgeon,' which are not unfrequently used to denote the specialities in which practitioners are interested."

A CONCESSION has been granted by the Indian Government to the Eastern Development Corporation, Ltd., for the collection of gum oleo-resin of *Boswellia serrata* in Khandesh. The terms of the concession have been fixed and further progress is awaited.

**PHYSICAL SOCIETY.**—The jubilee of the Physical Society of London, which falls on March 21, is being celebrated by a series of functions. The five surviving Fellows of the first hundred are Professor H. E. Armstrong, Sir W. F. Barrett, Professor J. A. Fleming, Sir Arthur Schuster, and Professor W. C. Unwin.

## Pharmaceutical Society of Great Britain Branch Meetings

**Bradford.**—At a meeting of the Bradford Branch on March 13, Mr. F. W. Appleyard presiding, Mr. W. Sutcliffe gave an address on *What can I do for Pharmacy?* He prefaced his remarks by stating that the chemist should link himself up with public services outside his craft, and referred to the relationship between the medical profession and pharmacy. As professional men chemists are faced by many obligations peculiar to their calling, and which hedged them in on all sides, particularly in relation to the laws of poisons and pharmacy. It should not be necessary to remind a pharmacist that all poisonous substances intended for external use should be placed only in bottles distinguishable by touch. The public had a right to look for uniform method amongst pharmacists, quite apart from the statutory obligation involved. Where a doubt as to procedure existed, the Pharmaceutical Society, through its branch secretary, could always be approached for advice. With regard to the pharmacist's duty in making sure that his customer was conversant with the nature of a poison and its use, it was wiser to err, if at all, on the side of over-cautiousness. Speaking of the Pharmaceutical Society, he suggested that there had hitherto been too great a tendency to criticise the parent body in a carping spirit. Many had sat in judgment on the Society, without a knowledge of inner facts. In spite of occasional failures, he said the Society had brought off some remarkable successes. What he would ask every pharmacist to do would be: Join the Pharmaceutical Society and support it through thick and thin; read the pharmaceutical Press regularly, and keep *au fait* with matters affecting the craft; attend the meetings of the branch, and take office if required; support financially the Parliamentary fund when inaugurated; vote each May at the Council election; be loyal to, and promptly carry out any requests from the secretary of the Society or the branch; interest oneself in aspirants to pharmacy; make welcome any stranger taking over a Bradford business. Some of the little extra services which a man might do might be instanced by some of his (Mr. Sutcliffe's) own modest efforts in past years, such as interviewing local Members of Parliament when necessary to get their support in Parliament; the preparation of papers or addresses for the association, and addresses to gatherings outside of pharmacy; visiting medical men to secure their sympathy or support on necessary occasions; calling on chemists to swell the ranks of the local association or, as during the war, the local contributions to special funds; soliciting support not only from chemists but from drug store proprietors on matters relating to early closing and the like. When he was on holiday he usually made a practice of a friendly call on some of the pharmacists of the district visited. It was a friendly and fraternal thing to do, and if one needed a selfish aim in it, it was very useful when touring for securing accommodation and knowledge of the locality. There were many other ways in which a pharmacist could interest himself personally in furthering the welfare of the craft as a whole.

**Leeds.**—A meeting of the Leeds and District Branch was held at the Guildford Hotel, on March 12, Mr. F. Pilkington Sergeant (Vice-President of the Pharmaceutical Society, and chairman of the Branch) presiding. Dr. E. Welch (chairman of the Leeds Panel and Medical Benefit Sub-Committees) gave an address on *The Relation of Pharmaceutical Education to Medicine*, and Mr. H. N. Linstead (assistant secretary of the Pharmaceutical Society) addressed the meeting on *The Society's Activities as they Affect the Student*. After the meeting, tea was provided, with the Branch as hosts, and a smoking concert occupied the evening. Mr. Sergeant, opening the meeting, outlined the purposes and objects of the Pharmaceutical Society, and of the branch. He held that the Society has now evolved, though not yet completely, a scheme of education on a thoroughly scientific basis. The stiffening of the examination was necessary

because of the demand for efficiency in the public safety; because the present inrush of candidates to pharmacy could not be maintained; and because the facilities for general education in all localities were now of a much higher character than formerly. It was not correct to say, as some critics did, that the examination included subjects which would be of no practical value. They were all of practical value, and of value as items in a high standard of general knowledge, which would be particularly useful to those whose bent eventually took them into branches other than retail pharmacy. Dr. E. Welch said the trend of events was drawing doctors and pharmacists closer together in a bond of public service, and it was obvious that the relation of pharmaceutical education to medicine must be very close. It was a mistake for the student to think he had to do much work which would be of no use afterwards; it was all a valuable grounding and led to the possibilities of new developments. The more thoroughly a craft was studied the greater became the individual benefit and the individual broadening of sympathy. Alterations were taking place in the educational curriculum in all great professions. He believed the only item in the medical curriculum that had not been much altered was that of pharmacology. That subject seemed to be gradually becoming cut down, and left to the pharmacists, whilst the medical curriculum increased its attention to therapeutics. That was obviously quite right, because the medical service would get unwieldy if the two branches were not left each to concentrate on its own phase of it. He believed specialisation in pharmacology lay in the hands of the chemists for the future. Mr. H. N. Linstead, speaking on the activities of the Pharmaceutical Society in relation to students, outlined the Society's revised educational policy. The modern tendency to teach more than hitherto in the schools could not be overlooked by any educational body, and it had not been overlooked by the Pharmaceutical Society, which had thoroughly overhauled its education system. Speaking of the acceptance of the school-leaving certificate of a secondary school as a preliminary examination for pharmacy, Mr. Linstead urged students to register with the Society and stay at school and work on at the same school for Part I, in order to avoid any break in his studies. If he could not do that he should, during his apprenticeship, continue unbroken studies by getting time off. He thought it must be admitted that whilst the matriculation standard of general education was desirable, it would not have been fair to press for this whilst in certain localities it remained very difficult to students to get facilities for matriculation training. He strongly urged all who could make the effort to matriculate to do so, as no student knew exactly what branch of the profession he might ultimately wish to enter. Mr. Linstead also touched on the various scholarships offered to students. The one cardinal rule for passing the Qualifying examination was never to drop some regular work in chemistry or botany or physics from the time the preliminary was passed. He urged all students to join the Pharmaceutical Society, and through the area branches to press for whatever help they felt they required.

**London (E.).**—A meeting of the East Metropolitan Branch was held on March 6, Mr. W. J. Beardsley (chairman) presiding. Messrs. Beardsley, Gaze and Gray were appointed delegates to attend the forthcoming British Pharmaceutical Conference at Bath in July. The Chairman then gave an address on *Apprenticeship from a Wholesale Institutional and Retail Points of View*. It is a vital necessity, he said, to the profession that all its branches should be controlled by men who have had a pharmaceutical training, and have passed the Qualifying examination. Before the conditions were enforced which demanded that an apprentice should spend four thousand hours in dispensing with a retail pharmacy, it was possible for men in the wholesale and institutional branches to qualify after having satisfied the examiners. At the present time it has become impossible to qualify from either branch without serving the time specified in the retail pharmacy. He contended that the present system is not only unfair to the apprentice who is entering the institutional or wholesale side, but to the profession

itself. No retail pharmacist would contend that the pharmacist and chemist of a wholesale house or institution is incompetent and less able to give the necessary instructions to a pupil than the pharmacist with retail practice. In the wholesale house the art and practice of dispensing is quite as necessary. In the institution dispensing is probably on a larger scale than the majority of retail pharmacies. What is required in the various branches for a successful career?—*Retail*.—An accurate knowledge of dispensing. Poison laws and regulations. Botanical and chemical knowledge to enable him to convince himself that a drug, chemical or preparation is true to name or label. A knowledge of poisonous and over doses. Salesmanship. *Wholesale*.—Full knowledge of the chemistry of the B.P. The requirements of the Food and Drug Acts. Botanical knowledge of drugs, their constituents and the best methods of exhaustion as well as general recognition. Manufacture and estimations of the galenicals of the B.P., and other works. Poison law and regulations. Prescription reading, a knowledge of arithmetical chemistry and adaptation of formulary. *Institutional*.—Knowledge of dispensing, and compounding of medicines on a larger scale than required by the retail. Prescription reading and an adaptability of immediately noting incompatibles and over doses. Chemical and botanical knowledge to recognise and test articles if necessary. General knowledge of book-keeping for the purpose of ordering and storing various goods, etc. The tendency at the present time is to drive the three branches into different qualifications, the retail into the present qualification of the Pharmaceutical Society, the wholesale into the Institute of Chemistry, and the institutional pharmacist to that of the Apothecaries' Hall. To continue and develop the profession it is absolutely necessary to cement and bind together more firmly the branches, that complete understanding and mutual confidence may exist. This can be developed under a common qualification. An alternative suggestion is that only 500 hours' dispensing in a retail pharmacy or a school of pharmacy be required, and that in the student's third year, when with some knowledge and preparation the student will be enabled to obtain a fair intimacy with the requirements of retail dispensing. In the discussion which followed, Mr. W. Gray said he had come almost prepared not to accept the wholesale as a training ground for apprentices, but had modified his views since hearing the chairman. After Mr. Beardsley had replied to the points raised, a vote of thanks was accorded him.

**Rhyl.**—The annual meeting of the Rhyl Branch was held on March 12. Mr. P. J. Ashfield presided, and the following were appointed officers for the ensuing year. *President*: Mr. C. R. Dixon (Rhyl). *Vice-President*: Mr. T. H. Roberts (Ruthin). *Hon. Sec.*: Mr. H. Crabbe Davies (Rhyl). *Committee*: Messrs. Ashfield and Lawrence (Rhyl). Mr. Uttley (Abergele). Mr. A. Benson Evans (Denbigh). Mr. Topping (Flint). Mr. Morgan (Holywell). Messrs. Hughes and Pritchard (Prestatyn).

## Festivities

### Whist Drive at Portsmouth

A WHIST DRIVE was held by the Portsmouth Chemists' Association, on March 12, to conclude the winter social season. Mrs. W. R. Atterbury presented prizes to the winners as follows:—*Ladies*: Mrs. Byerley, Mrs. Lawton, Mrs. Fry, Miss Freeland. *Gentlemen*: Alderman F. G. Foster, Mr. Fogden, Mr. Smithers, Mr. W. R. Atterbury.

### Eno's Social Evening

THE Eno Recreation Club, in connection with J. C. Eno, Limited, held a successful social evening and concert in the canteen at the works, Pomeroy Street, New Cross, London, S.E., on March 14. Mr. A. Taylor (advertising manager) presided. After refreshments had been served a programme of songs and music was gone through. The entertainment provided was excellent, outstanding items being duets by Miss Elymer and Mr. R. D. Grant, and songs by Miss Tuck, Mr. Alderwick, Mr. R. Wilson, Mr. J. Smith and Mr. Viggars.

### Rhyl Chemists' Dinner

AT the Westminster Hotel, Rhyl, on March 12, the first annual dinner and social gathering of the Rhyl and District Branch of the Pharmaceutical Society of Great Britain was held. Mr. Percy J. Ashfield (chairman), who presided, was supported by Mr. H. O. Lloyd, a member of the Council of the Society. After the loyal toasts, Mr. G. R. Lawrence submitted the toast of "The Pharmaceutical Society of Great Britain," and Mr. H. O. Lloyd, in responding, first thanked the North Wales members of the Society for the support they had given him in the past. He pointed out that there was a great deal of progress now being made, and the formation of the Rhyl and District Branch was a right move. He also thanked the pharmacists of the district for the help they had given to the benevolent fund, and asked that all would assist in its work. Mr. C. R. Dixon, the President-Elect for the ensuing year, gave the toast of "The Visitors," and it was responded to by Mr. G. Brinstone, Liverpool. Mr. Topping, Flint, gave the toast of "The Ladies," and Mr. J. E. Jones responded on behalf of the ladies. The toast of "The Artists" was given by the Chairman, and Mr. Bert Jones and Mr. H. Crabbe Davies responded. The toast of "The President" was given by Mr. Brinstone, who referred to the enthusiasm with which Mr. Ashfield undertook his duties. Mr. Ashfield said he looked upon that gathering as something to be proud of. For years they had been quietly working in order to bring about a better feeling amongst the members of the profession, and he was glad to see that such a feeling did exist in that district. He paid a tribute to the work of Mr. Crabbe Davies towards the success of the branch. An enjoyable musical programme was provided by Mr. Abner Roberts, Miss Maud Roberts, Mr. Mellard, Mr. Bert Jones and Miss Crabbe Davies.

### Bedford Chemists' Dinner

THE Bedford branch of the Pharmaceutical Society met at the "Swan Hotel," Bedford, on March 5, and spent a highly enjoyable evening. The chair was occupied by the President (Mr. J. H. Webb), who was supported by Mr. Melhuish (Council of the Pharmaceutical Society), Mr. G. A. Mallinson (Secretary of the Retail Pharmaceutical Union), Mr. A. W. Morgan, Mr. S. W. Strachan, Mr. F. Perkins (Hon. Secretary). The Chairman, in proposing the toast of "The Pharmaceutical Society and Retail Pharmacists' Union," said the Society had been one of the best abused of institutions, and the Union was now taking some share of the criticism. If the Pharmaceutical Society had not attained all they might wish, it was not because of the Society's shortcoming altogether, and "it was not in their stars that they were underlings, but in themselves." Mr. Melhuish, in responding, said the Society is in a flourishing condition, as is pharmacy generally. In respect to the benevolent fund, they had just enough in that fund to meet their standard demands, without any reserve for what he might term casual calls. This could be overcome by systemisation, by all of them making it a habit to subscribe something periodically to the benevolent fund. He did not think that the enormous amount of work done by the Council of the Society, the two fundamentals of whose policy was education and organisation, was realised. But for this policy, pharmacy would not hold the position it did to-day. Mr. Mallinson responded for the Retail Pharmacists' Union. The President, he said, had intimated that they had lifted a burden from the back of the Society, but he hoped they were not going to bear the blame for the Society's sins as well as for their own. The Union was not in any sense competing with the Society, and whilst there were many who thought they would be better without the Society or the Dangerous Drugs Act, he was convinced that the latter was the only real protection that legislation had afforded them. It made the handling of dangerous drugs their absolute responsibility. He concluded by expressing his conviction that the findings in the National Health Inquiry would not be detrimental to chemists. "The Visitors" was proposed in suitable terms by Mr. A. W. Morgan, and responded to by Major Wiggington (managing director of the Erasmic Company).

## Pharmaceutical Botany

### XLIX. Malvaceæ—Marshmallow

The mallow order (*Malvaceæ*) is readily distinguished by its peculiar column of stamens, the filaments being united into a tube below, and much branched above, terminating in anthers with only a single cavity ("half-anther") with transverse dehiscence (instead of the usual longitudinal slit). This order also provides good examples of pollen grains with spines for sticking to a stigmatic surface. The twisting of the five distinct petals in bud (convolute preformation) and the epicalyx of bract-like appendages to the five-fid gamosepalous calyx also help to characterise the order. In the marshmallow (*Althaea officinalis*, Linné, Fig. 160) the calyx has more than five of these bract-like appendages, these being linear and much shorter than the five lobes of the calyx. The marshmallow is not uncommon in moist situations in Southern England. It is a perennial plant with erect,



FIG. 160.—*ALTHAEA OFFICINALIS*.

branched flowering stems about three feet high, covered, as well as the foliage and inflorescence, with a dense velvety down. The leaves are broadly ovate and usually three-lobed. The hairs provide an effective barrier to the moisture deposited by heavy dews wetting the stomata of the leaves, and thus stopping the exchange of gases known as transpiration. The pale rose-coloured flowers appear rather late in the summer (August-September) in the axils of the upper leaves. The flower and fruit resemble those of the common mallow (Fig. 161), except that the epicalyx consists of several (about eight) segments instead of three as in the ordinary mallow. The ovary, which is superior, consists of fifteen to twenty carpels. The fruits (known as carcerules) are capsular, splitting when ripe into sections corresponding to a single carpel, each containing a kidney-shaped seed. Such fruits, which split into their component carpels to shed their seeds, are known as schizocarps. The leaves are sometimes used in this country, but much oftener on the Continent, to make an infusion or "thé" for coughs, etc. The

root, which is still an article of commerce, should be the basis of the marshmallow sweetmeats known as *Pâté de Guimauve*. In pharmacy pulv. rad. althææ is used as an absorbent in pill-making. Marshmallow root is collected on the continent in autumn from plants about two years old, scraped and dried. The root, which is perennial, attains about a foot in length and an inch in diameter. It is yellowish and wrinkled externally,

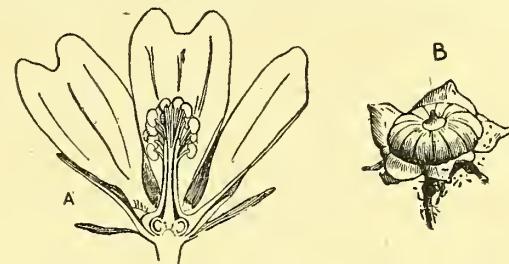


FIG. 161.—FLOWER AND FRUIT OF *MAYVA SYLVESTRIS*.

and this outer coating and a portion of the bark is scraped off previous to drying. The dried root is usually met with in flexible finger-like pieces about six inches long, with deep longitudinal furrows. It has a mawkish taste and becomes slimy on chewing. It is owing to its mucilage content that the root is used as a demulcent, or in poultices. In a section of the root large isolated cells are visible under the microscopé, and treatment with suitable stains shows them to be filled with mucilage.

## Recent Patents

**Abstracts of specifications of recently-granted patents for inventions.** The complete specification (1s. each including postage) of British patents can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

**Soother.**—A baby's comforter comprising a glass reservoir, to contain syrup, etc., provided with a single opening, closed by a teat. (R. S. Dowell and A. W. Dowell. 210,888.)

**Urea Derivatives.**—A process for producing tetra-substituted urea by treating a secondary amine with carbonyl chloride in an organic solvent. (Nobel Industries, Ltd. 211,245.)

**Utilisation of Seaweed.**—A process for converting fresh seaweed into a pulp, consisting in treating it, after boiling and grinding, with solution of ammonia or sodium carbonate, followed by evaporation. The product contains cellulose and alginates. (F. C. Thornley, F. F. Tapping, and O. Reynard. 211,174.)

### GERMANY

**Liquid Pyrazolone Derivative.**—A liquid additive compound of phenyl urethane and 1. phenyl. 2. 3. dimethyl. 5. pyrazolone, insoluble in water, is obtained by heating both compounds in the ratio of 330:188 parts. Intended for local application in rheumatism and neuralgia. (J. Kessler. D.R.P. 389,880.)

**Synthetic Cocaine.**—A process for the production of *d*- $\psi$ - and *l*- $\psi$ - cocaine from racemic ecgonine methyl ester by splitting up the latter into its optically active components, e.g., by treating the ester with *d*- $\alpha$ -bromo-camphor- $\beta$ -sulphonic acid and ethyl acetate, whereby *d*- $\psi$ -ecgonine methyl ester is obtained, which is identical with natural *d*-ecgonine methyl ester. This ester is dissolved in benzol, and after the addition of benzoic acid anhydride the mixture is heated under a reflux cooler for two hours. The alkaloid obtained melts at 45° C., its hydrochloride at 205° C., optical rotation of a 5 per cent. solution  $[\alpha]_D^{20} = +43^\circ$ , and is identical with *d*- $\psi$  cocaine obtained from plants. (E. Merck. D.R.P. 389,359.)

## Westminster Wisdom

By the "C. & D." Parliamentary Representative.

### MINISTRY OF HEALTH INSPECTORS

The Minister of Health stated in the House of Commons, on March 5, that there are 407 Insurance inspectors employed at the Ministry of Health, the total salaries, including bonus, being £157,882. Of these inspectors 73 are employed on Unemployment Insurance work, which the Ministry of Health has undertaken as agents for the Ministry of Labour.

### DANGEROUS DRUGS ACT

Lieut.-Colonel Fremantle asked the Home Secretary on March 13 the actual effect of the Dangerous Drugs Act, 1923, in checking the illicit importation of such drugs?

Mr. Henderson replied that the Act came into force towards the end of last May, and its full effect on the smuggling of drugs into this country, and on the illicit traffic generally, cannot yet be estimated. The additional powers, however, given by the Act have already been found of great value, and the heavier penalties which the Courts are now empowered to impose have already, it is believed, had a deterrent effect on the traffic.

### METHYLATED SPIRIT DRINKING

Mr. M. Mitchell asked the Secretary for Scotland, on March 18, whether his attention has been drawn to the number of persons in the principal towns in Scotland dealt with for drunkenness resulting from the consumption of methylated spirit; and what steps he proposes to take to prevent the drinking of methylated spirit?

Mr. Adamson replied that he is aware that drunkenness resulting from the consumption of methylated spirits is prevalent in some of the principal towns in Scotland. This matter has been fully considered by the Departments concerned, and measures are in progress which are intended, *inter alia*, to make methylated spirits even more unpalatable than they are at present.

### OPIUM TRAFFIC

Lieut.-Colonel Fremantle asked the Home Secretary on March 13 the present position as to the regulation of the international opium traffic and restriction of production?

Mr. Henderson said the member will be aware that the general supervision of the traffic is entrusted to the League of Nations, so far as its members are concerned, subject to the provisions of the International Conventions in force, and that the League has appointed an Advisory Committee to deal with the subject. The proceedings of this Committee, and the action taken by the League and the several Governments on its recommendations will be found in the official publications of the League. As a result of the preparatory work done by the Committee, it was decided at the assembly of the League last September to call two International Conferences this year to consider the Far Eastern situation, and the question of the restriction of production respectively.

### THERMOS FLASKS

Mr. Hogge asked the Chancellor of the Exchequer, on March 18, whether he is aware that a thermos flask imported by post is not considered by the customs officials as liable for duty under the Safeguarding of Industries Act as blown glass ware or as a scientific instrument, but that the aluminium cup is dutiable to the amount of 1d. as domestic aluminium hollow ware, and that the post office imposes a charge of 6d. for the collection of the 1d. duty; and whether he will consider the advisability of issuing an order to exempt such articles from duty?

Mr. Snowden replied that by an order made under Part II of the Safeguarding of Industries Act, 1921, thermos flasks fitted with aluminium cups are liable to duty as aluminium hollow ware at the rate of 33½ per cent. *ad valorem* in respect of the value of the cup, if manufactured in Germany. The fact that in the extreme case, of a single flask imported by parcel post the duty may be as little as 1d. cannot be regarded as a sufficient reason for a general exemption in respect of all flasks.

## Personalities

MR. A. E. MARSH, Ph.C., barrister-at-law, has been adopted by the Leicester Branch of the Pharmaceutical Society as a candidate for election to the Society's Council.

MR. F. E. BURDETT (M. Rogerson & Son, Ltd., chemists, Darley Street, Bradford) has joined the provisional executive of the newly-formed Bradford Publicity Club.

MR. H. M. LIDDERDALE, B.A. (Oxon), secretary to the Executive Council of the Imperial Institute, has been appointed Acting Director in view of the resignation of Professor Dunstan.

EX. COMP. HENRY W. DIX, chemist and druggist, Pontypool, was installed as M.E.Z. of the Kennard Chapter of Royal Arch Masons, No. 1258, at the Masonic Hall, Pontypool, on March 11.

ON the occasion of the visit to Exeter of Princess Helena Victoria, on March 14, her Highness was received and welcomed to the city by the Mayor, Mr. Philip F. Rowsell, F.C.S., member of the Council of the Pharmaceutical Society.

MENTION was made, at a recent sitting of the Burton-on-Trent Bankruptcy Court, of the fact that Mr. Joseph Laing, who in 1887, when he kept a drug store at Stapenhill, was adjudicated a bankrupt, has now paid his creditors in full.

MR. GEORGE E. DAVIES (A. & F. Pears, Ltd.) was installed in London, on March 12, as Worshipful Master of Kent 15, one of the oldest Masonic Lodges in England. Among the pharmacists present was Mr. W. B. Trick (Lewis & Burrows, Ltd.), a Grand Lodge officer.

A CARTOON depicting Mr. Thomas Hardy, J.P., chemist and druggist, Maryport, in his capacity of a well-known Cumberland athlete, appeared in the "West Cumberland News" of March 15. Mr. Hardy's accoutrement included "plus-fours," boxing gloves, tennis racket, footballs, cricket bat, golf clubs and a hockey stick.

IN RECOGNITION of fifty years' service, Mr. Arthur Bridgewater, senior chemist to Major & Co., Ltd., chemical manufacturers, Wolverhampton, was presented, at the staff dinner on March 13, with a cheque from the company, another from the managing director (Mr. J. Lewis Major), and a rosebowl from the staff, who also gave Mr. Bridgewater an umbrella.

AT the funeral of the late Mr. G. C. Maynard, chemist and druggist, Wymondham, whose death was recorded in our issue of March 15 (p. 373), local pharmacy was represented by Mr. F. T. Alpe, Mr. J. F. Collin, Ph.C., Mr. T. N. Eastland, Mr. W. J. Lacey, Mr. W. G. Skoulding, and Mr. J. de Carle Smith. A wreath was sent by the Norwich and District Pharmaceutical Association.

MR. ARTHUR MORTIMER, chemist and druggist, was elected Vice-President of the Harrogate Rotary Club at the annual meeting of the Club on March 11. Cordial tributes were paid to his work as secretary of the organisation since its inception, the retiring President saying that Mr. Mortimer had "brought to Rotary that power of organisation and tireless energy which enabled him to build up a most prosperous business, and then, disposing of it while still a comparatively young man, to devote his prime of life to more congenial, though probably less lucrative, professional activities."

THE PRESIDENT of the Board of Trade stated in the House of Commons, on March 4, that the British Dyestuffs Corporation employ fifty-one chemists in research work.

PROTECTION OF TRADE INTERESTS.—In the course of a judgment delivered in the Court of Appeal on March 13, Lord Justice Banks made an observation on the rights of traders in terms reported as follows: "It could not be disputed that a body of traders were entitled to adopt a policy which they *bona fide* believed was necessary for the protection of their trade interest, even if the effect of putting that policy into operation were to interfere with the business of others."

## Births

Notices for insertion in this column must be properly authenticated.

BOOTH.—On March 18, the wife of Parkin S. Booth, F.A.A. (The Association of Manufacturing Chemists, Ltd., 14-17 Holborn Viaduct, London, E.C.1), of a daughter.

KEMP.—At "Trevose," Muswell Road, London, N.10, on March 13, the wife of H. Kemp, M.P.S. (Kemp's Pharmacy, Ltd.), of a son.

ROBINSON.—At 25 South Street, Keighley, recently, the wife of Henry Robinson, chemist and druggist, of a son.

## Marriages

FOX—WHITE.—At the Trewellard Wesleyan Church, Pendeen, Cornwall, on March 9, by the Rev. W. Newby, George Fox, M.P.S. (manager, E. Williams, Falmouth), eldest surviving son of the late Mr. Alfred Fox, Penzance, to Phyllis Vingoe (late of West Cornwall Infirmary, Penzance), only surviving daughter of Mr. J. T. White, Bojewyan, Pendeen.

## Deaths

BOLTON.—At Lincoln, on March 7, Mr. Thomas Walter Bolton, chemist and druggist, Woodhall Spa, aged thirty-nine. Mr. Bolton had carried on business at Woodhall Spa for ten years. He was a member of the local chamber of trade and of the Old Union Lodge of Freemasons.

BREEZE.—At 22 Lockyer Road, Plymouth, on March 15, Mr. George Breeze, J.P., chemist and druggist, chairman of Breeze's (Plymouth), Ltd., wholesale druggists, Union Street, aged eighty-six. Mr. Breeze served his apprenticeship with Caley & Corder, chemists, Norwich, of which city he was a native. He first started in business for himself at Modbury, Devon, and in 1863 removed to Devonport, where he established and developed a very successful business in Catherine Street. He took a prominent part in the public life of Devonport for many years, serving as councillor and alderman. Leaving the retail trade twenty years ago, he and his son, Mr. Alfred D. Breeze, started the wholesale druggists' firm, since converted into a limited company. Mr. Breeze was President of the Plymouth and District Association of Pharmacists in 1897, and served as a magistrate at Plymouth for a long period. He was twice married; two of his sons predeceased him, and he is survived by a widow and one son (Mr. Alfred D. Breeze). At a sitting of the local magistrates on March 17, Sir Thomas Baker, who presided, made sympathetic reference to the loss sustained by the town.

BRIGHAM.—At Windhill, Shipley, Yorkshire, on March 9, suddenly, Mr. John George Brigham, Ph.C., aged fifty-two. Mr. Brigham passed the Major examination in 1900, and commenced business on his own account soon afterwards. He was a member of the Bradford and District Pharmacists' Association and a churchwarden. The funeral, which took place on March 12, was attended by a large gathering of representatives of Windhill Parish Church, the Shipley Education Committee, the Windhill Conservative Club, and the Bradford and District Branch of the Pharmaceutical Society. Among the pharmacists present were Mr. W. E. Metcalfe, Ph.C., Mr. W. Rimmington, and Mr. J. A. White. Mr. Brigham leaves a widow and four children.

GALLOWAY.—At Forres, recently, after a long illness, Mr. William Galloway, retired chemist and druggist. Mr. Galloway, who was born at Inverness, commenced business before the coming into force of the Pharmacy Act, 1868. He retired some years ago.

HEATH.—Recently, Mr. Alfred Heath, retired chemist and druggist, father of Mr. W. V. Heath, chemist and druggist, 340 Great Clowes Street, Higher Broughton, Manchester, and of Mr. S. Heath, chemist and druggist, 394 Holderness Road, Hull, aged seventy-six. Mr. Heath

was in business for forty years, and was well known in pharmaceutical circles in the Manchester area.

MIDDLETON.—At 8 Nile Grove, Edinburgh, on March 13, Mr. David Middleton, retired chemist and druggist. Mr. Middleton, who was a native of Tarland, had experience with H. C. Baildon & Son, Princes Street, Edinburgh, before commencing on his own account. He qualified in 1885, and for more than thirty years had a business in Bruntsfield Place. He leaves a widow, a son and a daughter.

MOORE.—At Swissville, Albert Place, Stirling, on March 16, Mr. William John Moore, chemist and druggist (W. J. Moore & Son, chemists, 24 Murray Place), aged ninety-two. Mr. Moore commenced business in Dunblane, sixty-four years ago, and subsequently established himself in Stirling. He leaves a son.

OLDFIELD.—On March 11, Mr. Manton Oldfield, chemist and druggist, 92 High Street, Poole, aged sixty-four. Mr. Oldfield, who qualified in 1882, carried on a pharmacy in the City of London till 1908, when he acquired a business at Ipswich. In 1921 he disposed of the stock and prescription-books to Cornell & Cornell, Ltd., and removed to Poole. Mr. Oldfield was a Past Master of a Masonic lodge.

PREBBLE.—At Chislehurst, on March 15, suddenly, Mr. John George Prebble, chemist and druggist, aged sixty-nine. Mr. Prebble qualified in 1876 after a course of study at the Bloomsbury Square School of Pharmacy. He spent thirteen years in India, and then settled at Chislehurst, where he found scope in leisure hours for botanical investigation. He successfully developed his business, and two branches were opened. Mr. Prebble's genial and unassuming disposition, added to the sincerity and uprightness of his character, gained him the esteem and respect of all who came in contact with him. He leaves a widow and one son; his elder son lost his life in the European War.

RECKITT.—On March 18, Sir James Reckitt, Bt., D.L., J.P., chairman of Reckitt & Sons, Ltd., manufacturers of starch and laundry blue, Hull, aged ninety. The first overseas branch of Sir James Reckitt's well-known business was opened in Australia in 1884. He was a generous patron of philanthropic movements in Hull, of which city he was made an honorary freeman in 1908.

ROBERTS.—At 6 Shiel Road, Wallasey, on March 11, Julia, widow of the late Mr. Robert Roberts, chemist, Carnarvon, aged sixty-nine. Interred at Carnarvon, March 14.

SAXBY.—Recently, Mr. Robert Saxby, chemist and druggist, Tower Street, London, W.C.1. Mr. Saxby was in business before August 1, 1868.

WILKINSON.—At Beaconsfield House, Southport, on March 13, Mr. Benjamin Wilkinson, formerly in business as a manufacturing chemist at Blackburn, aged fifty-eight.

## Wills

MR. JAMES HAYLES, chemist and druggist, 70 Uxbridge Road, Ealing, London, W., who died on January 8, left property of the gross value of £4,004 7s., of which £233 18s. 6d. is net personalty.

MR. SAMUEL BAKER, chemist and druggist, 19 St. John's Street, Chichester, who died on February 4, has left £9,004 16s. 5d., the net personalty being £6,288 4s. 5d. Probate is granted to his daughter, Ellen Elizabeth Baker, to whom the property is left absolutely.

MR. ROBERT MCADAM, J.P., of 52 Darnley Road, Pollokshields, Glasgow, late of the Apothecaries Co., Ltd., who died on October 20, left personal estate in Great Britain valued at £8,813 11s. 9d. Probate of the will has been granted to John Walker, chemist, 32 Virginia Street, Glasgow, J. M. Marshall, Robert McAdam, Hurstville, Sussex Terrace, Burgess Hill, and James McAdam, Ladder Hill, Poultry Farm, Swinton.

## Trade Notes

KARMIT SEASICKNESS REMEDY is made by W. Jones & Co., 134 Southampton Row, London, W.C.1, who desire to appoint agents abroad for it.

NILDÉ WINDOW-DISPLAY COMPETITION.—The complete list of prize-winners in the window-display competition of the Nildé (Paris) Agency, Ltd., is given in the company's advertisement.

THE THERMOS TOBY JUG is a new form of thermos flask. It is illustrated in the advertisement in this number of Thermos, Ltd., 12-14 Denman Street, Piccadilly Circus, London, W.

“GRIPS” FIRST-AID PASTILLES.—J. W. Lightbown & Sons, the proprietors of “Grips” First-aid Pastilles, insert an invitation in four languages to visitors to the British Empire Exhibition.

FRENCH BOXES AND LABELS.—Mr. C. A. Blanchet, 168 Regent Street, London, W.1, is the representative of L. Marbœuf et Cie, the producers of boxes and labels for perfumery and toilet articles.

WRIGHT, LAYMAN & UMMNEY, LTD., Southwark Street, London, S.E., have just received a cable announcing that the company has been awarded a gold medal for Wright's coal-tar soap at the Calcutta Exhibition.

EUREKA WEEDKILLER.—Tomlinson & Hayward, Ltd., Lincoln, remind us that the weed season is commencing, and that chemists should look to their stocks of Eureka weedkiller. Advertising matter is offered to chemists.

A NOVELTY IN ADVERTISING in this issue is a four-page section printed in two colours. This advertises “The Daily Express,” Thermogene, Phyllosan, and Kolynos. Of the effectiveness of the announcements there can only be one opinion.

PHOTOGRAPHIC DEVELOPING AND PRINTING.—Thompson & Capper, Ltd., Manesty Buildings, College Lane, Liverpool, remind chemists of the facilities offered for developing and printing. Showcards and specimens are supplied as advertising material.

“FRUITIA” SULPHUR TABLETS.—Chrystoid (Chemists), Ltd., 1-3 Gower Street, Bootle, Liverpool, have sent us samples of the “Fruitia” sulphur tablets advertised in this issue. The tablets are pleasantly flavoured with lime-fruit and raspberry. Showcards and cartons are sent out with every order.

EMPTY GELATIN CAPSULES.—John Tye & Son, 457 Caledonian Road, London, N.7, have resumed the manufacture of unbreakable empty gelatin capsules, which form useful packages, not only for veterinary remedies but for lozenges, pills, tablets and powders. The sizes are indicated in the firm's advertisement.

MILKAL COUPONS.—Milkal, Ltd., explain the system of coupons which doctors and nurses are authorised to issue to patients requiring Milkal. Each coupon represents a rebate of 6d. on the price of the food. The coupons are afterwards sent by the chemist for repayment to Milkal, Ltd., 31 St. Petersburgh Place, Bayswater, London, W.2.

OPTICAL CATALOGUE.—Raphael's, Ltd., Hatton Garden, London, E.C.1, have just issued Section 6 of their optical catalogue, dealing with ophthalmic instruments, artificial eyes, reading shades, etc. It is beautifully illustrated, and has reached the pre-war standard of excellence for which Messrs. Raphael's catalogues were noted.

NEW SEASON'S COD-LIVER OIL.—The British Drug Houses, Ltd., 22 to 30 Graham Street, City Road, London, N., send us a sample of the new season's cod-liver oil just received from Norway. The physical characters are ideal, the taste being bland with only a suggestion of its fish origin. The company tell us that the new oil is high in content of vitamin A.

“CARNATION” CORN CAPS.—Cuxson, Gerrard & Co., Ltd., Oldbury, Birmingham, issue a set of very effective showcards advertising the “Carnation” corn caps. The cards are rendered additionally attractive by excellent reproductions of carnations in red and green, while the messages on the cards are terse and to the point. The showcards and artificial flowers are sent out with each order.

“ACELTA” CAPPING RACK.—The “Acelta” Capping Co., Ltd., 185 Princess Street, Manchester, have just brought out an adjustable rack for use with the “Acelta” bottle capping. The rack allows of the bottles, the necks and corks of which have been dipped, to be placed to drain. A tray is provided for the “Acelta” drippings, and these can afterwards be re-dissolved, thus doing away with any waste. The rack and tray cost 6s. 6d.

ENO POSTER.—The illustration is a sketch of a new poster issued by J. C. Eno, Ltd., Lever House, Victoria Embankment, London, E.C.4. The poster, which measures 30 by 20 in., is by E. McKnight Kauffer, and is reproduced in eight colours. Chemists desiring a copy of this attractive poster should send a post-card request to the sales manager.

ROUND THE WORLD.—The medical equipment for the aeroplane flight round the world of the U.S.A. Army airmen, which started from Los Angeles on March 17, was supplied by Burroughs Wellcome & Co. The cases were specially designed and had to pass an inspection by the Army Air Service. In addition to the aeroplane cases, the leaders also carry No. 706 “Tabloid” First-Aid, the standard pocket outfit for aviators, as supplied to the British pioneers of intercontinental flight, such as Alcock, Hawker, and Ross-Smith. Each case of the special “Tabloid” First-Aid Equipments measures 15 by 9 by 3 in., and is made in aluminium with removable tray and partitions. Each contains a full supply of “Tabloid” medicaments, antiseptics and dressings, and, in addition, essential instruments are included, and a supply of “Tabloid” tea.



## Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in “The Chemist and Druggist Diary,” 1924, p. 289.

(From “The Trade-marks Journal,” March 12, 1924.)  
 “CARBO-LIMO”; for a soil dressing (2). By Ship Canal Portland Cement Manufacturers, Ltd., Stanlow Works, Ellesmere Port, Cheshire. B. 444,418.  
 “DOGAILS CANINE REMEDIES”; with device including dog's head; for dog medicines (2). By Gertrude W. Riley, 13 College Road, Handsworth Wood, Birmingham. B. 440,127.  
 “ACROSYL”; for all goods (2). By the Graesser-Monsanto Chemical Works, Ltd., Cefn, Ruabon, N. Wales. 444,885.  
 “NODOC”; for chemicals (2). By W. H. Baumbrough, 71 Whitley Road, Eastbourne. 445,014.  
 “SCLERON”; for a medicine for arteriosclerosis (3). By Internationale Laboratorien & Klinisch Therapeutisches Institut Arlesheim Actien Gesellschaft, Arlesheim, Switzerland. 434,033.  
 Label device, including facsimile signature, “Dr. I. Rahlejey”; for a rheumatism embrocation (3). By I. Rahlejey, Kosovska ul 43/11 Belgrade, Serbia. 439,811.

## Information Department

### INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

F/103. Agnew's Heart Remedy	D/113. Hygiama Food
E/113. Browne's Essence of Ginger	H/183. “Loupidine” (sheep medicine)
B/113. Ciquolin	F/123. “O.K.” brand absorbent cotton-wool
C/173. Gibbon's English Sana-togen and Formamint Lozenges	L/193. Radiospray disinfectant
C/53. Hargreave's Pills	

## Observations and Reflections

By Xrayser II.

### The Thanks of the Trade

are due to you for the admirable series of articles on Insurance dispensing terms, and your last week's summary of the principal points you have made. This comes particularly handy on the eve of the Retail Pharmacists' Union Executive election as a test for the candidates, and if the best use is to be made of your articles it will be so applied. You have put the essential features of our case in the shortest and clearest form possible, and everyone who aspires to represent us should thereby be taught his catechism. Nobody, indeed, who has this ambition can fail to be grateful for the information and guidance so compendiously supplied; the subject is so complicated that only an expert could reasonably hope to arrive on all points at a sound conclusion; but with this summary in his hand, and the whole series to refer to, nobody can be seriously at a loss for a policy; there will be a general agreement as to what we want, the only doubtful point being the amount of pressure we should exert to obtain it. It is perhaps, as you say, too much to hope that the whole question of our remuneration will be reviewed now; but that is no reason why we should hesitate to press for the removal of injustices or to refuse to accept worse terms than those of which we complain with only too much right. The more firmly we do this the more likelihood there is that the promised Royal Commission will be appointed without much delay, and will treat us with due respect when it is appointed. Our present policy is to demand and insist upon such terms as we could accept permanently, and no other. Their permanence we can then leave an open question. Meanwhile we may be sure that the better our position is when a permanent settlement is arrived at, the more satisfactory that settlement will be.

### A Circular Letter

is being sent out from Bloomsbury Square inviting all non-members of the Pharmaceutical Society to take the opportunity of joining which is afforded by "the recent creation of the Society's Branch Organisation," and enclosing a form of application for election. The reasons why this should be considered a duty by all pharmacists are more temperately set forth than they have been recently by some over-zealous advocates of the Society, and the reason why many qualified persons "stand aloof" is charitably supposed to be mere thoughtlessness—more charitably than correctly in some cases, I am afraid. It is more than likely that a good many of these outsiders stay without because, during the period in which they were refused membership while men with no qualification but that of having been nominally in business as chemists before 1868 were admitted, they not only got along very well without the Society but conceived a dislike of its ways which they have never overcome. However this may be, it is certain that there is something more than thoughtlessness or indifference at the back of these abstentions, some positive reasons, though I do not say good ones; and if such there are, it is much better that they should be brought out into the open and fairly faced than be slurred over.

### Possibly the Retail Pharmacists' Union

is in some quarters regarded as a sufficient substitute for the Society, and it is certain that the number of subscriptions now required of us is felt by many to be burdensome. I am afraid, at any rate, that Sir William Glyn-Jones's letter will not have much effect, especially since a tactical error has been committed in sending it out as his. Such an invitation ought to have come openly from the President and Council, not from the secretary. The letter accompanying the summary of the Dangerous Drugs Act Regulations sent out by the Council is stated to be issued by the Council's desire, and in the original the secretary's name at its foot is printed, not lithographed. Is there any particular reason why this missive differs in these respects from the letter referred to above?

### Pharmaceutical Politics,

says Mr. Simmons, must necessarily be carried on to a great extent in the dark, and he illustrates the saying by a reference to photographic processes. If he means that the Society as a whole should develop, tone, and fix its policy within its own membership before making it known in external action the analogy may be a sound one; but if he means that the non-official members of the Society must be kept in the dark until the policy is declared to the world the two cases are not really analogous. I am afraid this is what he does mean, however. If so, it is surely a little inconsistent of Mr. Simmons to be so eager for more and more branches. I have always understood that one of the chief objects aimed at by the establishment of branches was to tighten the bonds of membership through the whole body of the Society, to beget a corporate intelligence, a corporate conscience, a corporate will. This cannot, of course, be effected in a day, but it will never be effected at all if the counsels of the Society are conducted in the dark and its policy "built in the eclipse" before it is launched in the open. No doubt policy takes its rise in the dark; a scheme of policy may originate in the brain of one man and be elaborated in the circle of his intimates, but before it is actually adopted and put into force it must be submitted to the whole body and generally approved if the appearance of a corporate life is to be a reality. Mr. Simmons speaks as if, from first to last, the policy of the Society must often be determined secretly in London before it can be declared in the country. If that is so I think it would be good policy to keep that secret, too, in London, for I doubt whether the country branches will welcome it. Evidently they are, in George Eliot's phrase, branches "only in an imperfect colonial sort of way."

### Mr. Simmons is right,

however, with regard to the supply of cocaine eye-drops where the rest of the outfit has been supplied by non-qualified firms. It may be annoying to be made a convenience of in this way, but it is bad policy to show it and foolish to refuse the service. We gain nothing by doing so except ill-will and a reputation for small-minded spite, and we run a considerable risk of injuring ourselves with the Home Office. It is best to accept the situation in a spirit of meekness as one of "the spurns which patient merit of the unworthy takes." It is but a small addition to the whole sum and, unlike some of the items, it does bear a small profit. We get some moral advantage, too, from the fact that these people are forced to come to us.

### I Commented

in your last week's issue upon Mr. Ogden's declaration that the poor are perishing because of the extravagant profit made on patent medicines. Mr. Clement (of Clement & Johnson) puts the saddle on another horse—it is the patent-medicine stamp that is to blame. I am quite willing to think he is nearer the truth; it is clear, if his figures are correct, that the Government gets more out of Yadil than the retailer does, and the Government's is therefore the greater sin; but the whole proposition that the price of patents, however it is arrived at, is responsible for such a wholesale mortality as is alleged is rather "steep" even for an advertisement. I think Mr. Clement would do well, in his own interest, to moderate his tone a little. I am quite with him in wishing to see the tax on patents reduced, but he is not likely to bring this about by arguments which are not taken seriously by people who think. There is an account of a missionary who had been telling some workers in a blast furnace the story of Jonah and the whale. Having duly impressed them with this, he went on to that of the "three Hebrew children" and the burning, fiery furnace—"oh, a thousand times hotter than this of yours," he said. "Nay, mon," replied one of his auditors, "I canna' swaller that." "No," said another, "nor I don't believe that fish tale neither, now."



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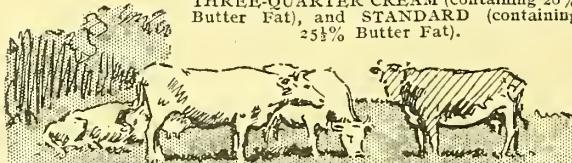
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## Editorial Articles

The Wholesaling of Poisons

II

THIS week we deal with the new responsibilities imposed upon the order office of wholesale drug houses. Drug clerks, educated by years of routine and a steady growth of the various complicating factors, have achieved accuracy and celerity in dissecting orders according to departmental divisions ("wets," "drys," laboratory, pills, oils, etc.). The poison-room came into existence for storage and putting up of highly toxic chemicals and galenicals, but it was not unusual until recent years to find statutory poisons elsewhere also according to considerations of convenience. The Dangerous Drugs Acts and Home Office rulings advanced the poison-room to full departmental status, with a special clerical staff attached thereto, for ascertaining which orders contain poisonous preparations. It is necessary to verify signatures on these and enter them in the poisons registers with the words "signed order" as the "open sesame" for exit of poisonous chemicals or drugs through the portals of the poison-room. The principles involved in the search are simple enough, calling for thorough knowledge of customers and use of the C. & D. extended list of Part I poisons. It is the details that are conflicting, confusing, and full of pitfalls to the unwary. We propose to indicate some of these that are by no means self-evident. The requirements of the Arsenic Act for all orders for uncoloured arsenic

and preparations thereof to be *in writing* are substantially unaffected. As regards the export of poisons, the labelling of these with the name and word "poison" still holds good, but apparently every indent is a "signed order," without any qualifying conditions as regards signature. However, a licence is necessary for the export of "dangerous" drugs. Moreover, the exporter is supposed to know whether these can enter the importing country, however complicated the laws may be as regards "habit-forming" drugs and preparations. Wholesale houses have already had enough experience to get these permits with the minimum expenditure of time and trouble, but the cost is such that export orders containing such items are often executed at a loss on the whole order, and not only on the "dangerous drug" itself. Orders for poisons from chemists and "signed orders" from medical practitioners, dental surgeons, and veterinary surgeons require verification of signature. As a wholesale drug house may have a thousand or even ten thousand accounts, this is a problem beyond human intelligence and memory unless some complete system of vouchers exists ready for reference in every case. The ideal arrangement would appear to be the filing of facsimile signatures similar to that in use by banks for cheques. The Dangerous Drugs and Poisons Amendment Act, 1923, clearly lays down in the case of orders from doctors that

The seller must be reasonably satisfied that the signature affixed to the order is in fact the signature of the person purporting to sign it, and that that person is a registered medical practitioner.

Many facsimile signatures could be obtained by asking for and filing special signatures or duplicate carbon copy of actual signature in the case of first orders of known origin, but considerable tact would be required with many customers. In reality the onus of "reasonably sufficient" precautions requires the responsible management of a wholesale house to verify the credentials of each and every one of its clients. Not only must the signatory for a "dangerous" drug be duly qualified or authorised, but it is necessary to ascertain that he or she is engaged in business or is practising his or her profession. Thus each ledger account should have an entry on the poison-card index or reference book, with a signature and a statement regarding qualification. Moreover, the wholesaler is expected to know when authorisations have been withdrawn and also when such disabilities are removed. It behoves them to follow our columns and make their own records of these occurrences, as legal difficulties prevent republication or compilation of a "black list." Again, it is not certain whether inclusion of name in the Medical Register or the Register of Chemists and Druggists is evidence of reasonable care unless the addresses given on the order agree therewith and orders are delivered to the address in question. The Pharmacy Acts for the protection of the public from poisoning were based upon the intimate personal relationships existing between chemists and druggists and their customers. The Home Office Act took advantage of this pre-existing example of poison control to regulate the supply of habit-forming drugs, and made wholesalers subservient to both the Pharmacy and the Dangerous Drugs Acts, with bureaucratic application of retail procedure on a wholesale scale, ignoring the conditions and conventions of many decades. The wholesale trade has adapted itself easily and quickly to the changed conditions. The personal knowledge of their clients is supplied mainly through commercial representatives. Through these, forms with signature are readily obtainable and various complications straightened out (such as connection between qualification and trading designation, several doctors in partnership, change of address). It is with orders by post, telephone, and messenger that delay and doubt will ensue unless the record of the clerk of poisons

is complete and up to date. The routine of registration and filing orders will be dealt with later, but each of the latter types of order for "dangerous" drugs requires special treatment, such as sending by registered post, subsequently obtaining signed orders, or production of licence. The burden of obtaining within twenty-four hours a proper signed order for "emergency" dangerous drug preparations in reality devolves upon the supplier, as otherwise his file of orders kept for reference is incomplete as shown on comparison with his registers. Wholesalers would be well advised to follow to the last detail their general practice of not supplying "dangerous" drugs to other than to the chemical or medical profession, even to oblige a retail client who cannot supply direct such partially authorised persons as midwives, farmers, owners of factories and masters of vessels. The correct procedure wherever a transaction does not come within the ordinary relationships of wholesaler and retailer is to apply for a licence for each transaction except in the case of the medical profession, where the conditions outlined above apply.

### The Rise in Mercury

IN last week's Trade Report we briefly outlined the circumstances under which the sudden strength in the mercury market was brought about, and in our issue of February 23 (pp. 272, 273) we stated that "having regard to the aspect of the market, it can only be assumed that the Italian producers are well aware of the fact that the stocks at the Spanish mines were abnormally reduced towards the latter part of the past year." This information we can now supplement by a letter we have received from a well-known authority on the mercury market, who informs us that:—

The Spanish mines have experienced considerable difficulties with the miners, so much so that the production has been less than halved. Most of the furnaces have been put out; there is talk of entirely closing the mines and replacing the miners with a complete new set of men; but even if Spain continued to produce on the normal basis until they close the mines, as usual, in May, the production will be during the months of August-October several thousands of bottles short of the normal consumption.

During the last few years the consumption has been very much more than the production, so much so that the stocks at the various mines and depôts have been entirely absorbed. There are no stocks to-day, and the future production of most of the mines has been heavily mortgaged against sales.

The rise is a genuine one, based on actual statistics, and in my opinion it must rise still higher, and remain at a very much higher level for a very long time.

To the foregoing we may add that there has undoubtedly been a shortage of stock on the London market. On March 7 last there was already indication of an upward move when the price was advanced by dealers to £10 per bottle, and in the course of the past week another £1 5s. advance ensued to £11 5s. to £11 10s. The rise theretofore from the extreme lowest point recorded so far this year represented £1 10s. per bottle. The current price compares with £12 5s. and £8 12s. 6d., the two extreme points touched last year. Business of late has been rather difficult almost at any price. In a rising market the trade demand was certainly stimulated, while the duplication of inquiries in one direction or another, partly by dealers in their eagerness to secure parcels, made would-be sellers the more reticent. There were inquiries heard of last week for parcels varying from 200 to 300 bottles, which in the bare state of the market tended to aggravate market stringency. The 400 bottles of Italian metal which came in quite recently would seem to have quickly disappeared, as apparently none of this parcel has been available for sale. So far as can be gathered, a few firms have been buying on the recent rise, the purchases effected having been presumably

on speculative account. The demand has been largely confined to spot delivery, but the strength of the market has been fully reflected in the increased terms quoted by Italian exporters for prompt and near shipment, while the latter were ostensibly anxious enough to avail themselves of an opportunity to effect further sales to this market. The terms that were quoted in that direction at the close of last week for moderate quantities were equivalent to £10 15s. to £10 17s. 6d. per bottle c.i.f. London. There has been more inquiry for export from this side, but very little business has been possible, as the dealers usually identified with re-export business have but little or nothing to spare. There was a little improvement in the imports to England during last month against ridiculously small receipts in January, the total for February being 1,355 bottles, against 5,665 bottles for the same month last year. The aggregate for the two months represents only 2,181 bottles, however, compared with 7,472 bottles for the corresponding period in 1923, or a decrease of about 5,300 bottles. The shortage of mercury here is certainly not to be wondered at. Some of the dealers have apparently had to seek cover against over-sales made some time back in a weakening market which has contributed its quota to the sharp fillip; and to what extent they have succeeded in doing so it is difficult to say. Should the trade demand assume more important dimensions and the United States import again freely from Italy at any time, a contingency not to be lost sight of entirely in view of the continued comparatively small American production, the market would easily assume additional firmness, and as already been suggested, the outlook is for not only a continuance of the rise, but for still much higher prices.

#### Chemists and Medicated Wine Licences

TRADE rivalry is a healthy and natural, and, in many respects, not an undesirable thing. But it ought to be reasonable and intelligent. This is more than can be said of the opposition (which was unfortunately successful) put up on behalf of a brewery company at the recent Plymouth licensing sessions to three applications made by chemists for licences to sell medicated wines. The advocate for the brewery is reported to have said that "it was unfair that persons should cut into the legitimate trade of those who had to pay heavy rates and taxes and compensation." That anyone acquainted with the law on the matter should indulge in statements of this kind is calculated to fill us with astonishment. In the first place a chemist, even when he holds a wine licence, has to pay rates and taxes just like any other inhabitant of the place; and the licensed duty payable by him on a wine licence is identical in amount with that paid by the licensed tenant of a house owned by a brewery. Further, the statement that compensation is payable in respect of an "off" wine, which is the type of licence in question, whether it is held by a chemist or by a person who is not a chemist, has no foundation in fact. In the interests of the sane administration of our licensing law, it is to be hoped that whatever moved the justices to reject the applications made by the chemists, these eccentric reasons put up on behalf of the brewery counted for nothing in the decision.

#### Jamaican Pimento-Leaf Oil

THE latest issue of the Bulletin of the Imperial Institute (Vol. XXI, No. 3) comments on the development of the pimento-leaf oil industry in Jamaica, referred to in the annual report of the Department of Agriculture for 1921. That this report of the Institute is rather belated may be gathered from the fact that reference was made to the 1922 report of the Department on pimento-leaf oil in the *C. & D.*, September 8, 1923, p. 369. It may be recalled, however, that four years ago it was hopefully expected that the manufacture of vanillin might become a commercial proposition in the West Indies. The Bulletin now concludes that experiments do

not appear to have been altogether successful. The manufacture of vanillin in Jamaica (it is stated) is unlikely to prove a commercial success unless conducted under the direction of an expert and according to modern methods of production. It is suggested that it would seem more profitable to export the oil. But in the later 1922 report, referred to above, even this outlet has proved unremunerative. The price obtained for the oil showed that there is no adequate inducement for the development of the pimento-leaf oil industry. This is no doubt influenced by the great variation in the percentage of eugenol (41 to 93 per cent.), over which it appears no method of control has yet been found.

#### Nothing New under the Sun

THE inception of a rota for the supply of urgent medicines is associated, in the minds of most chemists, with the latter part of the European war. Yet among the polished pebbles of erudition in a handbook on mediæval socialism by B. Jarrett, to which our attention has been called, we find the following:—

He [Saint Antonino] much commends the custom of chemists in Florence on Sundays, feast-days, and holidays of opening their dispensaries in turn. So that even should all the other shops be closed, there would always be one place open where medicines and drugs could be obtained in an emergency.

Antonio, Archbishop of Florence, was a voluminous writer on theological subjects who died in 1459: his works were subsequently printed in numerous editions, and ultimately he was canonised. It may be that only a saint can appraise the real value of chemists to the community, in Florence or elsewhere.

## The Stethoscope

WHILE most readers of THE CHEMIST AND DRUGGIST who have had occasion to visit a medical man are familiar with the stethoscope, yet it may interest many to know that the idea for this instrument was conceived from a child's plaything. More than a hundred years ago, René Théophile Hyacinthe Laennec—one of France's medical pioneers—while watching a group of children playing in the Gardens of the Louvre, noticed that they were transmitting sounds to each other along pieces of wood. Impressed with the idea of utilising this method for listening to sounds in examining a patient's lungs, he went home, devised a tube from a roll of glued paper, and experimented with it in his ward at the Necker Hospital. From this keen sense of observation in the Gardens dates the modern stethoscope. Laennec gave to his invention the name by which the device is still known, deriving the word "stethoscope" from two Greek words, one meaning "the chest" and the other "to observe" or "to regard." The early stethoscopes devised by Laennec differed from those generally in use in this country to-day, for they were constructed of a single wooden tube permitting the use by one ear only. The original Laennec type is still widely used on the Continent, however, and there are in this country a few physicians of the older generation who prefer to use the wooden stethoscope, particularly in examinations of the heart. There are to-day many forms of the modern or binaural stethoscope, all of which consist of some form of chestpiece, usually made of metal, bearing such names as "Bowle's," "Skinner's," or "Teschke's," and transmitting the sounds through tubing to the headpiece which the doctor wears. There are many advantages in this flexible instrument. The examination is facilitated, because the doctor can "run over" the chest in a very short space of time. Again, instead of the patient being compelled to sit up in bed in order to permit of auscultation of the base of the lungs, it suffices to turn him or her on one side. Electricity, because of the delicacy with which it transmits the finer sounds, is playing its part in modern diagnosis, and in America many physicians are to be found using the electric stethoscope or "Heart-phone," a little instrument built on the principle of the telephone.—HERBERT E. KENDRICK.

## Costus Root

By E. M. HOLMES, F.L.S.

COSTUS root, like bissabol or sweet myrrh, has been used from time immemorial by the Chinese in the form of incense, and for purposes of fumigation as a perfume, but its use in modern perfumery in Europe is of quite recent date, and the plant yielding it was quite unknown until 1842, when it was found to be a native of Kashmir. Costus is mentioned by Theophrastus, the earliest botanical author in Europe, who wrote about 314 B.C., and its use is recorded about 243 B.C. in the offering made by Seleneus II, King of Syria and his brother Antiochus Hierax to the Temple of Apollo at Miletus, in which besides costus were included frankincense, (sweet) myrrh, cassia and cinnamon. In the first century A.D. it is mentioned by Dioscorides, Pliny, and Arrian of Alexandria, who wrote about the commerce of the Indian Seas from the Red Sea to the coast of Malabar. In continental Europe it is mentioned in the diploma granted by Chilperic, the second king of the Franks, to the monastery of Corbie, near Amiens, in connection with spikenard, cinnamon, and various spices. In the ninth century A.D. it occurs in a curious recipe, used by the monks of St. Gall in Switzerland for seasoning fish, the other spices mentioned including pepper, cloves and cinnamon. During the last fifty years costus root has occasionally appeared in the London market, but has usually been bought by enterprising Germans, who not infrequently profit by English neglect of opportunities afforded by English colonial products.

### THE NOMENCLATURE OF COSTUS

The credit of suggesting the possible botanical source of costus root is due to the eminent pharmacognost Soubiran about the year 1832, who pointed out that the structure of the root was allied to that of *Atractylis* and *Carlina* in the Natural Order *Compositae*. Dr. Falconer's discovery of the plant yielding it in 1842, when on a visit to Kashmir, confirmed Soubiran's opinion, for he found that the plant apparently belonged to the genus *Aplotaxis* (Nat. Ord. *Compositae*), but differed from it in having two rows of pappus on the achenes. It was at first referred to *Aplotaxis auriculata*, D.C., which had been previously described by Decaisne in 1839 under the name of *Aplotaxis Lappa*, but on account of the difference in the pappus Dr. Falconer described it in a new genus *Aucklandia*, under the name of *Aucklandia Costus*, the new genus being made in honour of the then Governor-General of India, the Earl of Auckland. The genus *aplotaxis* was subsequently sunk under the genus *Saussurea*, which has the pappus in two rows, since it was found that in *Aplotaxis* there is in several species a second deciduous row of bristles in the pappus, and C. B. Clarke therefore changed the specific name to *Saussurea Lappa*, under which it was first described by Decaisne, and although the name is appropriate on account of the burdock-like appearance of the flower heads, it is to be regretted that the rigid rule of priority should lead to the exclusion of the still more appropriate name *Saussurea Costus*, proposed by Soubiran in 1869. An excellent figure of the root, leaves, flowers and fruit is given in his "Drogues Simples," 6th ed., pl. iii, pp. 33, 36, fig. 554, 555. The small ovate flower heads with imbricated scales like those of the lesser Burdock (*Lappa minor*) well indicate the appropriateness of the generic name *Lappa*. It is necessary to explain these details of nomenclature, as all the names occur in different works on *materia medica*, and Dr. Pereira, in a lecture given in 1842 to the Pharmaceutical Society in May 1842 (and published in the first volume of the "Pharmaceutical Journal," p. 575) on "Modern Discoveries in *Materia Medica*," mentions costus root as having been "recently identified by Dr. Falconer as the root of *Aucklandia Costus*, the generic name being given in honour of the then Governor-General of India, the Earl of Auckland." This lecture is, moreover, interesting as showing how closely Dr. Pereira kept abreast of the discoveries of his time, the lecture having been given in the same year that Dr. Falconer described the plant.

### THE SOURCE OF COSTUS

The costus plant is a native of Kashmir, and is said by C. B. Clarke to extend to Sikkim, growing on mountain slopes at an elevation of 7,000 to 12,000 feet. It is a herbaceous perennial, the leafy stem dying down every year. The stems are unbranched, straight and striated, and about six to seven feet high. The leaves are alternate large, sublyrate with a large terminal lobe, and hastate-cordate at the base, unequally dentate at the margin, the teeth terminated by a bristle, the flower heads ovate, terminal and sessile, in clusters of five to eight, the florets blackish purple. The corolla is swollen at the throat and has linear segments, the anthers end below in two hairy tufts, the styles are divergent, and the achenes are glabrous, obovate and thick; the pappus is in two rows, the silky plumes coherent in threes or fours at the base and united into a caduceous ring. The roots are thick and branched, heavy and very aromatic. Some years ago a lady doctor, Miss K. Knowles, sent me from Kashmir some seeds of the costus plant, a few of which I sowed in my own garden, and distributed the rest to various botanical gardens. I only succeeded in raising one seedling, the rest were killed during the winter. The growth appears above ground in Kashmir in June and the flowering season is over in September, and the roots are dug up as soon as the fruits have ripened in September and October, chopped up into pieces about 2-6 in. long and dried. In Dr. Falconer's time he estimated that about 120,000 kurwars (of 192 lb. each) were exported to the Punjab annually on bullocks. The root is conveyed thence chiefly to Bombay, where it is sold under the name of *Ouplate*, and partly across the rivers Sutlej and Jumna to Calcutta, where it is called *Putchuk* or *Patchak*. In China it is known as *Mu-hsiang*. In Dr. Falconer's time the cost of collection and transport to the depots in Kashmir was about 2s. 4d. per cwt., but on entering India it increased in value to 16s. 9d.—23s. 4d. per cwt., and on reaching Canton the commercial value rose to 47s. 6d. per cwt. In 1875 the Consular Reports for two Chinese ports gave the imports for Hankow at 1,270 piculs, of 133½ lb. each, valued at £5,224 6s. 3d., and for Chefoo 277 piculs valued at £1,197. In Kashmir costus root is called *koot* or *kust*, in Sanscrit it is named *kushta*, by the Persians *kost*, and by the Arabs *qust*. The name, therefore, indicates that it must have found its way to Europe by way of Persia and Arabia.

### A CROWN MONOPOLY

The sale of the drug is a Crown monopoly; each village in the vicinity of the costus fields is assessed at a fixed amount yearly, which must be delivered at the capital, the Maharajah's agents buying the surplus at one rupee per maund, and retailing it at double the price. According to Baden Powell the root is universally used by the Kashmir shawl merchants to protect their goods from the depredations of insects. In China the root has been used for centuries, and he states that no mandarin will give an audience unless the *putchuk* or *Mu-hsiang* incense smokes before him. Dr. F. Porter Smith states that it is also used by the Chinese as an insectifuge and is smoked mixed with tobacco as an antidote to the craving for opium, and is also used as an aphrodisiac. In the *Pharmacopoeia of India* Dr. Irvine is quoted as stating that when opium was not produced in Rajwarra, costus was extensively smoked as a stimulant and that formerly great quantities went to China for smoking purposes. At all events, its narcotic principles and its effect upon insect life deserve further investigation. Schimmel & Co., of Leipsic, reported in 1896 that it contains 0.8 to 1 per cent. of a volatile oil boiling at about 295°, but which decomposes when the heat is increased. In view of the fact that the drug is a monopoly and the possible difficulty in the future of securing supplies for Eastern commerce, it seems desirable that its cultivation should be tried on the mountains of Africa or other British colonial countries where the mountainous districts would supply suitable conditions for its successful cultivation.

## Associations' Winter Session

**Bradford.**—The twenty-ninth annual meeting of the Bradford Pharmaceutical Association was held recently, under the presidency of Mr. J. W. Thorpe, and the meeting brought the career of the Association to an end. The annual report was submitted by the hon. secretary (Mr. R. A. Cross). Mr. W. E. Metcalfe formally moved, and Mr. F. E. Burdett seconded, the recommendation reached as a result of two special general meetings, that the Association be discontinued. The resolution was carried with two dissentients. There was some discussion as to the disposal of the funds of the Association, and it was eventually decided, on the motion of Mr. R. Carson, that the sum of £50 be handed to the Benevolent Fund of the Pharmaceutical Society, and that the remainder of the funds, after paying outstanding accounts, be given to the Orphans Fund of the Society. It was expected that this would amount to somewhere about £20, but the figure could not be known strictly until the realisation of war savings certificates. The votes accruing from the donation to the Benevolent Fund were vested in the charge of the President of the Bradford branch of the Pharmaceutical Society. It was also decided to place the books, records and any other non-monetary properties of the old Association in the keeping of the President and secretary, jointly, of the Pharmaceutical Society branch. On the proposition of Mr. D. S. Priestley, seconded by Mr. R. T. Silson, the retiring President and other officers were heartily thanked for their services during the past year—the last year of the Association. Mr. Thorpe and Mr. Cross responded.

**Ealing.**—At a meeting of the Ealing Pharmacists' Association, held on March 11, Mr. H. A. Irwin (President) in the chair, Mr. John Humphrey gave an address on *Remuneration for Insurance Dispensing*. He pointed out that remuneration was not synonymous with payment, and that it was only the actual reward for service rendered which could properly be regarded as remuneration. The total cost of Insurance prescriptions dispensed for insured persons in Middlesex during the year 1923 exceeded £46,000, of which rather more than half represented dispensing fees and establishment charges. Deducting the latter, it might be estimated that the average remuneration per chemist's shop did not exceed £50 per annum. Many chemists, of course, did not benefit to this extent, but some were far above the average. In no case probably did the service pay directly, because it was doubtful if the dispensing of medicines could, in any circumstances, be made to pay in a commercial sense. The question which chemists should ask themselves, however, was not whether Insurance dispensing could be made to pay, but whether it would pay them to drop it and leave it to be done by others. So far as Middlesex chemists were concerned, the question was whether they could have afforded to let the £46,000 paid for Insurance dispensing last year be diverted into other directions. They might be asked to accept a lower rate of remuneration in future—they ought to insist upon being paid at a higher rate, and it was to be remembered that the Middlesex Pharmaceutical Committee had originally demanded a dispensing fee of 6d. The Retail Pharmacists Union was now committed to this, but it must not be overlooked that the sixpence demanded by Middlesex in 1916 should now probably be represented by 9d. In any case, a dispensing fee of 6d. was the minimum that should be asked for. Such remuneration as Middlesex chemists received was carefully looked after by the Pharmaceutical Committee and its officials, and a detailed account was given of the methods adopted since 1915 to check the pricing of prescriptions, and deal with the various difficulties that arise from time to time. At the conclusion of the address, Mr. Humphrey replied to a number of questions.

**Edinburgh.**—At a meeting of the Edinburgh Chemists', Assistants' and Apprentices' Association, held at 36 York Place last month, Miss M. Grant Boag (President) in the chair, Mr. R. Gloyde Guyer, Ph.C., gave an

address on *Wild Flowers and their Folk Lore*. Mr. Guyer said he did not propose to give them a formal lecture, but rather to have an illustrated conversation on wild flowers and their folk lore. His purpose was to introduce them to the flowers in their natural surroundings. They offered a delightful pastime full of interest, but it demanded patience and perseverance. Living plants were hardly ever quite still, and of course they moved with the slightest breath of wind. To get a perfect picture one had to watch and wait for a favourable opportunity and grasp it without delay. In some cases, though he did not like to do so, he was compelled to pluck the flower and take it indoors to get an accurate photograph. He proposed also to give some of the interesting and illuminating folk lore which had gathered around the plants to which he introduced them. By folk lore he meant the history of the flowers coming down from the past. One branch of the subject of interest to pharmacists was about what was known as the doctrine of signatures. A plant with a heart-shaped leaf was said to be a remedy for heart troubles, a plant with a kidney-shaped leaf was a remedy for kidney troubles, a plant with red juice was good for the blood and a plant with yellow juice was good for the liver. There was also a folk lore associated with the names of plants, which was full of traditions and legends, historical and sacred, which often revealed the fact that plants regarded as British were really exotics which had been introduced and had established themselves as permanent individuals in the flora. The name also often indicated how the medicinal virtues of a plant had been discovered. Sometimes the scientific name is clumsy and unattractive, while the folk-lore name is simple and romantic. Thus *Bellis perennis* and *Myosotis palustris* are clumsy and unattractive, while the respective folk-lore names, daisy and forget-me-not, are simple and romantic. His purpose was to create such an interest in growing plants and their environment and associations as to induce them to follow up a hobby from which he had derived no little enjoyment, and which would enable them to grasp intelligently something of the minuteness of detail and the immensity of the great world of wonders in which they had their dwelling-place. The lecture was beautifully illustrated by an extensive series of lantern slides prepared by Mr. Guyer from exquisite photographs of scenery and growing wild flowers taken by himself. The series included most of the indigenous medicinal plants. On the motion of Mr. Rutherford Hill, seconded by Miss Purdie, a vote of thanks was awarded to Mr. Guyer.—At the meeting held on March 12, Miss M. Grant Boag in the chair, at which Mr. David Greig, Ph.C., M.B., Ch.B., gave an address on *Antiseptics and Disinfectants*. The lecturer explained the difference between them before passing to a consideration of particular varieties. With regard to carbolic acid and cresols, he said they are very satisfactory for sterilising knives and scissors. Carbolic acid must not be used if the wound is extensive, for fear of poisoning because of absorption. It is desirable also to emphasise the danger of gangrene from carbolic acid and cresol. It might be well to print on labels in large capitals: "On no account should even a dilute solution be kept applied for more than a few minutes, otherwise the finger will be lost." An infectious case may be nursed at home, and outside the sickroom a sheet sprinkled with carbolic acid is hung. It is difficult to say whether it kills any germs, but the carbolic odour reminds the household to proceed with caution. Compounds related to carbolic acid, such as salicylic acid and salol, were next considered. Mercury and other heavy metals are astringent, irritant and corrosive. These properties cause destruction of tissue and germs, and thus disinfection. Mercuric chloride is perhaps the most powerful disinfectant known. It cannot be used for instruments. A solution of 1 in 2,000 is very useful for sterilising the hands or dressings, but it must not be used too freely, because of its corrosive action. Silver nitrate is useful in certain forms of ophthalmia and in affections of the urinary tract. When applied it causes intense irritation, but being precipitated by the chlorides of the tissues, it does not penetrate deeply, and therefore is only very

slightly corrosive. Compounds of silver combined with protein are non-irritant but powerfully disinfectant. Their non-irritant quality enables them to be used in greater concentration than silver nitrate, but they are certainly not so active. Zinc sulphate.—Except in very dilute solution, zinc sulphate tends to cause more corrosion than silver nitrate, because of its greater penetrating powers. The speaker then went on to consider urinary tract disinfectants, and explained the action of hexamine, indicating that volatile oils have been replaced by more satisfactory and simpler drugs. Gaseous disinfectants, including formaldehyde and sulphur dioxide, were next described, the lecturer passing on to a consideration of the oxidising disinfectants. These included peroxide of hydrogen, potass. permanganate, chlorine, iodine, iodofrom, and boric acid. Mr. J. Laing then gave a paper on *Plant Products*. Plants, he pointed out, are Nature's greatest chemists. Man's efforts to produce in the laboratory these complex substances made easily by the plant are laborious and often futile. Mr. Laing then went on to describe photosynthesis, discussing the method whereby the plant elaborates substances such as starch, sugar, tannins. The function of these products were discussed, the author pointing out that tannin is an intermediate product in the formation of some other product. Gums, glucosides and alkaloids were next described and their functions discussed. These substances may be either waste substances or food material, although the evidence for the latter view is not very strong. All the products mentioned are built up of C, H and O, and we have also seen that these elements are contained in the atmosphere. There is another class of plant substances—the proteins and alkaloids—which, in addition to these three elements, contain nitrogen. The nitrogen is obtained from the soil. There are many other products, the result of ceaseless activity going on in the plant. They are all the result of the work of root and leaf. These two organs, situated at the extremes of the plant structure, have, as it were, a common meeting place in these varied products, the root working in darkness and the leaf in sunlight. Their co-operation results in substances without which we pharmacists could hardly exist.

**London (S.W.).**—The South-West London Chemists' Association held a meeting at Westminster College on March 11, when a lecture on *The Cathedrals of England* was given by Mr. H. F. Hutchison, B.A. (Oxon) (Vinolia Co. Ltd.). The lantern was operated by Mr. H. A. Mills, and interesting slides were shown. A vote of thanks was proposed by the chairman, Mr. F. G. Wells (Vice-President).

**Public Pharmacists.**—At a meeting of the Guild of Public Pharmacists, held on March 12, a lecture on *Some Movements of the Earth and their Relation to Everyday Life* was given by Mr. J. Wycliffe Peck, F.C.S. The lecturer touched upon the annual diurnal and more remote movements of the earth about its axis, with a view to showing how intimately they affected the development of mankind in different countries and contributed to the evolution of types.

**Redhill.**—A meeting of the Reigate and Redhill Pharmacists' Association and the local branch of the Pharmaceutical Society was held at the Warwick Hotel, Redhill, on March 12, when an interesting lecture was given by Dr. Francis Gayner, Redhill, the subject being *British Birds and their Nests*. The chair was occupied by the President of the Association (Mr. Oram). The lecture was admirably illustrated by a beautiful set of lantern slides, many from the lecturer's own photographs. The subject was dealt with in an instructive and entertaining manner. The descriptions of the various birds and their habits were interspersed with accounts of experiences of the lecturer himself. In his concluding remarks, Dr. Gayner drew the attention of his hearers to the peculiar ways of the cuckoo, a species which had been receiving a good deal of attention from authorities during the last few years.

THE address of the offices of the British Empire Exhibition Fellowship is 16 Grosvenor Gardens, London, S.W.1.

## Narcotics in Switzerland

THE Swiss Government's intention to ratify the Hague Opium Convention and to introduce legislation to enforce its provisions, embodied in two Bills presented to the Federal Parliament (C. & D., March 15, p. 382), has called forth considerable opposition in certain circles, particularly in German Switzerland. The commission appointed by the National Council to consider these two Bills received from a group of distinguished Swiss lawyers, and also from the Government of the canton of Basle, a memorandum maintaining that the Federal Government was not empowered by the constitution to introduce the measures stipulated in the Opium Convention. The commission, however, adopted the point of view set forth by the Federal Council in its message accompanying the two Bills—that is to say, it recognised the applicability of article 69 of the Federal Constitution to this case. Another body of opponents alleged that the Hague Convention was an incomplete and insincere instrument: "Its ratification would compel Switzerland to take measures which would seriously prejudice a section of her chemical industry. On the other hand, it does not compel the British Empire, particularly India, nor the other producing countries, to restrict the cultivation of the poppy, the collection of coca leaves, etc., etc. It wrings the necks of small states, but spares the interests of large countries." This group concludes its opposition to ratification with the courteous admonition: "First of all sweep before your own doors, Mesdames les Anglaises, you who criticise so loudly"; this is a delicate allusion to the somewhat pointed strictures uttered by Dame Lyttleton at the meeting of the League of Nations on September 27, 1923, on Switzerland's failure to ratify the Opium Convention, and which were resented at the time, particularly in German Switzerland. The commission has ignored these expressions of opinion, and in justification of its attitude has allowed to transpire that it fully recognises the absence of any control over the cultivation of the poppy and of coca in the Convention. However, it recognises that this control would present insurmountable difficulties. Effective supervision of narcotics can only be enforced by controlling the importation, exportation, manufacture and sale of raw opium, cocaine and their various derivatives; this supervision, it is pointed out, is carried out just as scrupulously by the large as by the small states. Great Britain, in particular, adheres rigidly to the stipulations of the Convention, and in this connection the withdrawal of the licence from an English firm of chemical manufacturers, for not having complied with the regulations laid down by the supervising authorities, is cited. After three days' deliberations, the commission, with one dissentient vote, decided to recommend the Federal Parliament to ratify the Hague Convention. With regard to the second Bill, embodying the regulations designed to give effect to the provisions of the Convention, certain minor alterations were adopted. In the first place it was agreed that these regulations should apply only to the substances actually enumerated in the Hague Convention, consequently the inclusion of coca leaves, proposed by the Federal Council, has been deleted, as well as the paragraph empowering the latter to add by ordinance other substances found to have a deleterious narcotic action, and used for illegitimate purposes. The article making provision for the issue of special order forms has also been deleted; further, the Federal Council alone will be authorised to issue the necessary import and export licences, the stipulation that these shall be granted following a recommendation by the cantonal authorities has been deleted. The two bills will probably come up for discussion at one of the first meetings of the new session of the Federal Parliament, which begins on March 24.

**HUNGARIAN ESSENTIAL OIL FACTORY.**—The Hungarian Credit Bank proposes to establish an essential oil factory in an alcohol distillery in the vicinity of Budapest. This step is contemplated with a view to reducing the imports of essential oils, which are obtained chiefly from Czechoslovakia and Germany.

## Safeguarding of Industries Act

### Rongalite

THE hearing of the complaint that Rongalite and zinc formaldehyde sulphoxylate have been wrongly included in the list of articles dutiable under Part I of the Safeguarding of Industries Act (*C. & D.*, March 15, p. 383) was continued by the Referee (Mr. Cyril Atkinson, K.C.) on March 11, 12 and 13. Mr. Kenneth Swan and Mr. R. Lambert Parry (instructed by Stephenson Harwood and Tatham) represented the complainants, the Colour Users' Association; the opponents were Messrs. Brotherton, whose counsel were Sir Arthur Colefax, K.C., and Mr. R. Moritz; the Board of Trade was represented by Mr. Trevor Watson.

Sir ARTHUR COLEFAX further cross-examined Mr. Parry, and called attention to a book on the hydrosulphites by Karl Jellinek, which, he said, definitely classified sodium formaldehyde sulphoxylate as an organic chemical. Mr. PARRY agreed that it cannot be classified as inorganic, but added that he did not think it could be classified as organic. Reference was next made to the Literature Register of Organic Chemistry of the German Chemical Society for 1912-13, in which this substance was referred to as organic, and to Meyer and Jacobson's book, where again it is included under the heading of "organic." Witness agreed that this was so.

Sir ARTHUR COLEFAX: Therefore it stands like this; that where there is any clear classification of this body it is classified as organic. Mr. PARRY said it was distinctly classified in Jellinek's book under the heading "Organic Derivatives of Sulphoxyllic Acid," which was literally correct. He regarded it as an organic derivative of an inorganic compound. Sir Arthur Colefax: And therefore an organic compound? Mr. Parry said one could equally argue back and say it is inorganic. Sir Arthur Colefax: But you do not say it is inorganic? Mr. Parry said he did not, and he preferred to call it an organic derivative of an inorganic compound. He agreed with Sir Arthur that one would expect to find it in Beilstein under the heading "organic." A long cross-examination then took place concerning Mr. Parry's statement in his earlier evidence that the formaldehyde is an additive compound and that this prevented the substance from being synthetic.

The REFEREE, in an endeavour to focus the point, told Mr. Parry that the point being put against him was that the formaldehyde did not retain its identity, and that therefore it could not be an additive compound. Mr. PARRY replied that the substance retained its identity in the sense that it could be got back again in any way one liked.

On the question of analytical reagents, Sir ARTHUR COLEFAX said that there are plenty of analytical reagents which are used qualitatively and not quantitatively, and this substance was one of them. Witness, however, would not agree that sodium formaldehyde sulphoxylate could be regarded as an analytical reagent in the sense in which the term is generally used. Coming to the point as to whether it is a fine chemical, witness agreed that Brotherton's made dyes, which he should agree were synthetic organic chemicals, but he was not aware that Brotherton's were fine-chemical manufacturers in the general sense. He differed entirely from counsel in saying that the price of sodium formaldehyde sulphoxylate or Rongalite was such as to bring it nearer to the region of fine chemicals than heavy chemicals, and many prices were quoted in this connection. Sir Arthur Colefax pointed out that the price of pure sodium formaldehyde sulphoxylate in 1922 was 9s. per lb., and in January 1924 6s. per lb., and added that there are plenty of indisputably fine chemicals which are cheaper. Witness denied that sodium sulphide is a fine chemical, and said that the price of the commercial quality is 8d. per lb. and the re-crystallised substance 2s. 6d. per lb. Similarly, it would need a big stretch of the imagination to say that sodium borate is a fine chemical, and the price was 11½d. per lb. Again, sodium cyanide R., i.e., pure, was 1s. 6d. per oz., and

the commercial quality was 3s. 6d. per lb. He agreed that sodium sulphocyanide would be regarded as a fine chemical, and The British Drug Houses' list was referred to as quoting this at 6s. per lb. Other prices were quoted in a similar manner, but at the end Mr. Parry would not agree that the price of Rongalite, or even pure sodium formaldehyde sulphoxylate, entitled it to be brought within the category of fine chemicals.

The REFEREE (to Sir Arthur Colefax): I suppose that some time you are going to prove how this stuff is made and what the reaction is? Sir ARTHUR COLEFAX said if he found it necessary to do that, it would have to be in *camera*. The Referee said he supposed that somebody would have to speak to that, because at present nobody knew what the reaction was as made in this country. It might be a secret, and Sir Arthur might not be disposed to do it, but if it was going to be contended that it was synthetic, then it ought to be spoken to by someone. Sir Arthur Colefax said he would like to leave that matter over for the moment.

Mr. PARRY was then questioned on a statement he had made that British manufacturers had been circularising users of this substance, asking them to try a less pure form. It turned out that this had been done by Brotherton's, in the course of a correspondence with the Calico Printers' Association, and having regard to the character of the letters—the circumstances were explained later by a witness from the Calico Printers' Association—Sir Arthur Colefax objected to the use of the term "circularising." Mr. Parry withdrew that word, and agreed that the correspondence had taken place in connection with some experiments which the Calico Printers' Association had been asked to make.

### BOARD OF TRADE CROSS-EXAMINES

The cross-examination of Mr. Parry was then taken up by Mr. Trevor Watson, on behalf of the Board of Trade. Questions were put as to whether this substance could be regarded as organic or inorganic, and Mr. Parry suggested that we could not do otherwise than call it an organic derivative.

The REFEREE asked if this meant there was to be a third class, in addition to fine and heavy, because hitherto in all these cases that had not been suggested. Mr. PARRY replied that here is a substance unlike anything that had been dealt with previously. It was referred to in one instance as an organo-metallic body. The Referee: Could it be fairly called a hydrocarbo derivative? Mr. Parry said in that case we should be hiding under that name every virtue which the substance possessed. He would not object to a sub-heading of "organo-metallic."

At the end of some cross-examination with regard to the formaldehyde being an additive compound, the REFEREE asked why that expression had been used, and Mr. Parry replied that it was because two bodies were mixed, and that it excluded synthesis. The Referee: Does it necessarily exclude synthesis? Mr. Parry said he thought it did, and it would be a stretch of the imagination to say that a combination of an inorganic body with the formaldehyde could be, or has been, regarded as a synthesis. There was no building up of the carbon portion of the body at all. The Referee suggested that the whole case turns on whether there is sufficient building up, irrespective of whether there is an additive compound or not, and on Mr. Parry agreeing, said he could not see why the additive compound idea had been made use of. Mr. Parry said his only point was to show that there is no element of synthesis in the process at all.

Mr. WATSON then put it that if solid sodium formaldehyde sulphoxylate is heated, it will char, which is a characteristic of an organic chemical. Mr. Parry agreed, and counsel added that if the zinc salt is organic the sodium salt must be organic, and if the zinc salt is a synthetic organic chemical so must the sodium salt be a synthetic organic chemical. From this, counsel referred to a statement in Jellinek's book referring to the preparation of zinc formaldehyde sulphoxylate as a synthetic preparation. Mr. Parry agreed that this might be synthetic up to a certain point, but it was a matter of deduction whether the process

was wholly synthetic. Personally, he did not think it was. If by synthesis was meant nothing more than the direct union of two bodies, then he would agree that zinc formaldehyde sulphoxylate was synthetic. It was all subject to the meaning of the word "synthetic." He would agree that half of the process was inorganic synthetic.

The REFEREE: But if the other half is going on at the same time, why should not the whole be synthetic? Mr. PARRY replied that it was chiefly for the reason that the view which he had always held, and still held, was that it is impossible to have a synthesis of an organic compound unless one brought together two organic molecules or built them up from their elements. Organic synthesis implied the combination of two carbon elements. The Referee said he had never heard it expressed in that way before. Mr. Parry said there was a good deal of evidence to that effect in the camphor case. His criticism of Jellinek's book was that there was not, in the instance quoted by counsel, a combination of bodies containing carbon atoms. Julius B. Cohen's book adopted the view which he himself had put forward. In answer to further questions, Mr. Parry read extracts from a recent statement by Sir William Pope in his controversy in "Chemistry and Industry" with Sir Arthur Colefax, as a result of the decision in the calcium carbide case, Sir William Pope taking the opposite view to that of the Referee, and witness contended that the statements made by Sir William Pope supported the views he himself had been expressing. The difficulty was that it was impossible to give a definition of synthesis to which serious exceptions could not be found. The Referee asked if this substance would come within the meaning of the definition of synthesis in the camphor case, "a building up of carbon compounds either from their constituent elements or from groups of differently constituted molecules by orderly steps, the result of which can be followed and from which the constitution of the structure can be deduced or inferred." Mr. Parry said in his view it did not, because in the present case we have a heavy inorganic chemical, bisulphide of soda, which was reduced—an essentially non-synthetic step—and then converted into nascent sodium sulphoxylate. There had been no synthetic step there. The Referee: But there has been a bringing together of two differently constituted molecules. Mr. Parry said if that was a synthesis, then ordinary washing soda must be synthetic, in exactly the same way. He had always read the decision in the camphor case as meaning the bringing together of two carbon compounds, and he had never heard it suggested that the bringing together of an organic salt with an inorganic body was a synthesis. In the camphor case it was purely an organic body. In the present case, although one might know what was going to happen, we did not know the ultimate structure of the resulting body. He assumed that the word "organic" was intended to be placed before the word "molecules" in the camphor decision, and in that case neither the process adopted by the Calico Printers' Association nor that used by Brotherton's—so far as he knew anything about the latter—came within the camphor case definition, in his opinion.

#### EVIDENCE FROM DYERS

MR. WILLIAM EDWARD KAY, head of the buying department of the Colour Users' Association for the past twenty-four years, spoke of the substances used in the calico dyeing industry before the introduction of Rongalite, as outlined by Mr. Swan in his opening speech, and said that the Association purchased Rongalite from the Badische Company, and similar substances under other names from Meister, Lucius and Brüning, and also from Cassella, each of which three makers supplied their material in two strengths. In 1914, when it became impossible to purchase this material, the Colour Users' Association obtained a recipe from one of the chemists who had previously been with Meister, Lucius and Brüning and started to manufacture at their Birch Vale and Watford Bridge works, the description of the process adopted at Birch Vale given by Mr. Parry being substantially correct. The Association had also

purchased a little from Switzerland under the name of Brittalite. The substances manufactured by the Association, or purchased from Brotherton's and Ashworth's, and also that obtained from Switzerland all gave equivalent results in practice. The substance made by the Association was in a liquid form, and that purchased from Brotherton's and Ashworth's, being solid, had to be converted into solution. The material was sold in 5-cwt. casks by Ashworth's, but Brotherton's, having taken over the German-controlled Mersey Chemical Works, continued to send out their Rongalite in 2-cwt. metal tins in the same form as the Badische Co. used to do. The Association had thirty print works throughout England and Scotland, and the witness said that his department is responsible for buying the materials for all these works. At the present time the Colour Printers' Association used half of the total quantity of sodium formaldehyde sulphoxylate used in the country, and made roughly about one-third of its own requirements, this one-third representing 40 tons a year. Witness supported the view expressed previously as to sodium formaldehyde sulphoxylate not being an analytical reagent, a synthetic organic chemical, or a fine chemical, but at the same time added that he did not come forward as a chemical witness except as a buyer. In reply to the Referee, Mr. Kay said that the fact that sodium formaldehyde sulphoxylate is used in the calico printing trade was, in his opinion, strong *prima facie* evidence that it is not a fine chemical.

Cross-examined by Mr. MORITZ, witness said that in his view there are heavy chemicals, fine chemicals, and chemicals which do not fall into either of these groups, and in the latter he included sodium formaldehyde sulphoxylate. Counsel put it to witness that leucotrope, of which Rongalite CL contained 50 per cent., is a fine chemical, with which witness agreed. The other 50 per cent., however, witness would not agree was a fine chemical, and when asked what he would call a combination of the two, namely, Rongalite CL, no definite answer was given. Witness added, however, that the combination of the two had none of the characteristics of a fine chemical. Dealing with the matter of price, as showing that Rongalite could, if anything, fall into the category of fine chemicals, witness pointed out whereas Rongalite is at present 1s. 9d. per lb., leucotrope is 4s. 6d. to 5s. per lb. Moreover, the Colour Users' Association could not, with its ordinary workmen, manufacture leucotrope in their works, because it was essentially a fine chemical requiring specialised plant and supervision.

#### TECHNICAL CHEMIST'S EVIDENCE

MR. FRANK OWEN ASHMORE said he had been chief chemist to the Colour Users' Association at their Buckden Vale Works for three years and at Watford Bridge Works for seven years, and informed the Referee that he was giving evidence as a calico printers' chemist and not from the point of view of an organic chemist like Sir William Pope. He superintended the installation of the plant at Watford Bridge, and the process of manufacture there was to start with bisulphite of soda ( $\text{NaHSO}_3$ ). Formaldehyde was added, giving formaldehyde bisulphite. Zinc dust was then added to the mixture, and this robbed the bisulphite of one of its oxygen atoms, giving a resulting solution containing sodium formaldehyde sulphoxylate having the formula  $\text{CH}_2\text{ONaHSO}_2$ . That process had been in operation at Watford Bridge Works since 1915 and also at the Birch Vale Works, both plants being started at the same time. Witness added that he had analysed the Formosul of Brotherton's and the hydrosulphite of Ashworth's, and found that the former contained from 75 to 80 per cent. sodium formaldehyde sulphoxylate and the latter 80 to 85 per cent., using methylene blue and titanium for titration. Using the iodine method of titration, the percentage in the case of Ashworth's product was from 87 to 89 per cent. and in the case of Brotherton's from 87 to 91 per cent. Also in Ashworth's product the iodine test gave from 10 to 15 per cent. formaldehyde bisulphite, while the quantity in the case of Brotherton's was from 0.75 to 4.78 per cent. As a matter of fact, it had been found that the presence of

the bisulphite for discharge purposes appeared to have a helpful effect. Recently some of the smaller works of the Colour Users' Association where the manufacture of sodium formaldehyde sulphoxylate was not justified had expressed a preference for Ashworth's material, and knowing, as was the fact, that Brotherton's material was as good a quality as Ashworth's, a representative of Brotherton's had been sent to the works, and as a result of what he saw had sent down some samples of their product containing a higher percentage of bisulphite for testing purposes, and every assistance had been given to Brotherton's in this respect by the Colour Users' Association. That was the history of the communication which had been referred to by Mr. Parry as indicating that a less pure form of product was being sent out by Brotherton's. Speaking of the mode of preparation of sodium formaldehyde sulphoxylate at the works of the Colour Users' Association, witness said there was only the ordinary works staff with a general supervision exercised by himself at the head office, with an analysis of the final product.

The REFEREE remarked that it did not seem a fine-chemical process of manufacture from the witness's description. Continuing, witness said that, as carried out by the Colour Users' Association, he certainly should not regard the process as synthetic. Attention was called to Chapter 10 of Sir Edward Thorpe's book, in which the question of synthesis is discussed, and witness said that he agreed with the statement there made "than if synthesis is to be taken in its widest sense and not merely in the sense of a building up from the elements, then there would be no ground for excluding all chemical combinations from being regarded as synthetic. Neither would he describe sodium formaldehyde sulphoxylate as an analytical reagent, for the reason that it was only used in his works to detect the quality of a dye. Speaking from the point of view of this material being a fine chemical, witness confessed that until the passing of the Safeguarding of Industries Act he had not any views as to what were fine chemicals, but he had had to consider the matter in many cases since, and certainly under none of the circumstances which he now attached to fine chemicals should he regard this substance as a fine chemical.

#### COMPLAINANTS' CASE CONCLUDED

Sir ARTHUR COLEFAX, in the course of his cross-examination, pressed upon witness the view that the use of any reagent for the identification of dyestuffs is sufficient to bring it within the range of analytical reagents. A reagent used to determine qualitatively the absence or presence of something must certainly be an analytical reagent, said counsel. Witness replied that bleaching powder was used for the same purpose, and therefore bleaching powder and many other similar substances must be regarded as analytical reagents, which was contrary to the general views on the subject.

The REFEREE: You mean that you can use a golf club as a walking-stick, but that that does not make a walking-stick of it. Witness: That is so.

Sir ARTHUR COLEFAX referred to Professor A. F. Green's book, in which sodium formaldehyde sulphoxylate is referred to as a reagent for the identification of dyestuffs, and to "Allen's Commercial Organic Analysis," which also referred to it as an analytical reagent. Some questions were then put on the subject of whether sodium formaldehyde sulphoxylate is a synthetic organic chemical, and witness said that he adopted the narrower view that synthesis is the process of building up from elements as distinct, as in this case, from a mere chemical combination.

This concluded the case for the complainants.

#### BROTHERTON'S CASE OPENED

Before the case for Brotherton & Co. was opened on March 12, Mr. Swan (for the applicants) complained that, after they had been discussing for two days what was and what was not a synthesis, he was still entirely in the dark as to what particular reaction Sir Arthur Colefax was going to reply upon as being the reaction employed in his process. He (Mr. Swan) had

been totally unable to address the minds of witnesses to the particular reaction which it was going to be said was a synthetic reaction, and that placed him at a very great disadvantage. He had present a scientific witness who had made a special study of the sulphoxylate reaction, and if he knew what particular reaction his opponents relied upon he could call that witness. The REFEREE said he thought Mr. Swan was entitled to assume that it was zinc + sulphur dioxide + formaldehyde + water. That had been put to each witness in cross-examination, and he inferred that that was the reaction on which Sir Arthur Colefax was going to rest his case. It was agreed that Mr. Swan should call evidence later if need be. No preliminary remarks were addressed to the Referee on behalf of Brotherton's, and evidence was called immediately.

Dr. JOSHUA, F.I.C. (works manager of Boake, Roberts & Co., Ltd.), said that Boake Roberts had dealt in sodium formaldehyde sulphoxylate for five or six years. Witness considered that sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate were fine chemicals, for the reason that, having constituted a considerable amount of research work in connection with them, he had come to the conclusion that the manufacture was of such a nature that the finest skilled control would be required. Sodium formaldehyde sulphoxylate was used in comparatively small quantities. Cross-examining, Mr. Swan produced a catalogue published by Boake Roberts in July 1923, in which he had not been able to find sodium formaldehyde sulphoxylate under the heading of "Fine Chemicals." Witness replied that the catalogue in question was one dealing with the essence and fine chemical side of the business, and that sodium formaldehyde sulphoxylate was contained in a catalogue dealing with the general side. Witness said he would produce the catalogue which contained the substance in question. Boake Roberts had never made sodium formaldehyde sulphoxylate commercially, but had purchased it from makers in this country when the demand arose, and not at all from abroad. Some of it was brought from Brotherton's, and it was sold again in the same chemical form as that in which it was bought. The firm simply acted as agents in connection with this substance. The research work referred to was not carried out by witness himself, but it had been instituted in order to ascertain whether the substance could be manufactured easily. They had been successful in producing the material but had not carried it beyond the laboratory stage. The conclusion arrived at was that the supervision required for carrying the process through commercially would be excessive.

#### SIR WILLIAM POPE'S EVIDENCE

Sir WILLIAM POPE, K.B.E., F.R.S. (Professor of Chemistry at Cambridge University), was strongly of opinion that sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate were synthetic organic compounds. Dealing with Mr. Parry's statement that sodium formaldehyde sulphoxylate was formed by the interaction of sodium sulphoxylate and formaldehyde, and that it contained these two bodies in combination, witness said the statement was an impossible one, because sodium sulphoxylate itself could never be made. There was every reason to believe that no one had ever obtained it in any form, and therefore it seemed impossible to take the view that a substance which did not exist so far as we knew was going to combine with something else and give a comparatively stable product. Reference was made to a formula which Mr. Parry had handed in, representing the reaction between formaldehyde and ammonia. Sir Arthur Colefax wished to put it to Sir William Pope, in order that he might criticise it and prove it to be wrong, but it could not be found. When Mr. Parry was asked to re-write it, he explained that it was a mis-statement—the result of a misunderstanding—but Sir Arthur was not to be robbed of the opportunity of proving it to be wrong, and told Mr. Parry to do what he was asked to do and nothing else. The formula was re-written, and was criticised by Sir William Pope. By means of formulas, the witness explained the difference between the change from acetic acid to lead acetate and the reaction which resulted in the formation of the bodies concerned in this inquiry. The difference was very clear that in

passing from acetic acid to a salt of acetic acid we did not introduce any new element of constitution into the molecule, whereas in the formation of the other bodies we created an entirely fresh element of constitution in the molecule, and that constituted a synthesis.

Questioned with regard to the phrase "additive compound," which had been imported into the case by Mr. Parry, witness said there was a little confusion as between "additive reactions" and "addition compounds." Sodium formaldehyde sulphoxylate was not, in his view, an addition compound, because he did not regard the body as being formed merely by the interaction of formaldehyde and sodium sulphoxylate. As an example of an addition compound he mentioned the body formed by the interaction of phosphoric acid and eucalyptol, which was the mere addition of one constituent to the other. An addition compound was one which was not formed in accordance with our ordinary ideas of valency, and was characterised by being extremely unstable. On exposure to air the eucalyptol evaporated away, and, further, it was decomposed by water. Benzene picrate was another example, and when exposed to the air the benzene evaporated away. On the other hand, one of the class of bodies of which sodium formaldehyde sulphoxylate was an example was the product of the interaction of sulphuric acid and ethylene, i.e., ethyl sulphuric acid. That was not an addition compound in any sense, but a compound of definite structure produced by an additive reaction. Ammonium chloride was another example, and a comparatively stable body. So far as we knew, there was no change of molecular grouping coincident with the formation of addition compounds, and that was partly responsible for the ease with which the substances were decomposed. As to the formation of sodium formaldehyde sulphoxylate, witness wrote the formulas to show the synthetic formation of formaldehyde sodium bisulphite from formaldehyde and bisulphite, and then the conversion to sulphoxylate by the interaction of zinc. Sodium sulphoxylate was not even formed in passing, and there was no reason why it should be.

Sir ARTHUR COLEFAX said that sodium formaldehyde bisulphite was in the Board of Trade list of dutiable articles, and had never been challenged; it could not be challenged now. With regard to the bodies concerned in the inquiry being synthetic, witness said there were many compounds formed by the interaction of organic and inorganic substances and formed synthetically. As to the suggestion that sodium formaldehyde sulphoxylate was not an organic compound, witness said it contained carbon, was produced from formaldehyde, and contained a particular radicle, the oxy-methyl radicle, and it seemed that it could not be excluded from a list of organic compounds. Asked in what way the word "synthesis" was rightly used, Sir William said that the word had changed its meaning with the development of chemical science, and at the present time he took it to mean "the artificial formation of a particular group or unit of constitution which was not previously present."

Questioned by the Referee with regard to an article he had written last year in "Chemistry and Industry Review," in criticism of the Referee's decision in the calcium carbide case, in which he had adopted the view of organic synthesis as being the linking up of carbon atoms, witness said he had only taken his definition far enough in that case to suit his particular purpose. It did not cover all the ground.

Replies to Sir Arthur Colefax, Sir WILLIAM said that in talking of synthesising organic compounds we must not be restricted to both the components used being organic, because if we were we should restrict our number of syntheses enormously. No operation would become synthetic in which we could combine an organic substance with an inorganic material, and that would be an absolutely illogical position.

#### THORPE'S DEFINITION OF "SYNTHESIS"

The REFEREE, referring to Sir Edward Thorpe's definition of synthesis as used in organic chemistry—i.e., as the building up of carbon compounds, either from their constituent elements or from groups of "differently constituted molecules"—said that that did not mean putting in "organic molecules," and he understood Sir William

would object to any attempt to limit it to "differently constituted molecules each containing one or more atoms of carbon."

Sir WILLIAM POPE said that would be illogical, and would serve no useful purpose so far as chemical science was concerned. Replying to further questions put by the Referee, Sir William said the use of the term "building up" was an attempt on the part of the writer to indicate the production of something more complex than it was formerly. He was of opinion that the groups of differently constituted molecules must themselves be capable of being built up. It was pointed out that in the synthetic camphor case it had been agreed that one of the groups could never be built up, and witness said he would not call that an actual synthesis, except in a very limited way. Witness said his definition to-day is no wider than that of Sir Edward Thorpe in 1903; in fact, he thought Sir Edward was going too far. Sir William did not agree that the production of sodium formaldehyde sulphoxylate was a matter of simplicity. It was a matter requiring very careful adjustment.

#### SIR WILLIAM POPE CROSS-EXAMINED

Cross-examined by Mr. Swan, witness would not agree that his present definition of "synthesis" was quite different from that put forward by him in the article referred to, but said it was merely expanded a little to deal with another type of case. He did not wish to qualify his present definition. His view was that both the nitration and the oxidation of an organic molecule produced a synthetic organic chemical, provided the oxidation did not go too far; for instance, so long as it did not oxidise to carbon dioxide. The degradation product of an organic body also fell within the present definition. Reference was made by counsel to the production of glucose from cane sugar by hydrolysis, which was a synthetic operation, and yet the product came on to the market in hundreds of tons. Witness agreed that it was a product of a synthetic operation, but the product as a product was not synthetic, because cane sugar was not produced from its elements. Mr. Swan: Do you say that a body actually produced by a synthetic process is not necessarily a synthetic body? Sir William Pope said he did. Mr. Swan asked whether he was to assume that the definition given by Sir William was no test whatever as to whether a body so produced was a synthetic organic chemical. Sir William Pope said he was not to assume that. Glucose, as produced by the hydrolysis of cane sugar, was not synthetic, in the sense that it was not produced from a substance which could itself be synthesised. Mr. Swan then referred to the fact that the Board of Trade list of dutiable articles included "acetic acid, 80 per cent. grade or higher," and "acetic acid (synthetic)," and sought to show that the Board of Trade had clearly differentiated between the 80 per cent. product, which would fall within Sir William's definition as synthetic, and a product which they had listed as synthetic, and that, therefore, the Board of Trade's distinction lost its force. He held that the acetic acid listed as synthetic was carbide acetic acid, and that the 80 per cent. acid was made by the oxidation of ethyl alcohol. In the course of cross-examination Sir William said that a large amount of acetic acid which came into commerce was produced by the oxidation of alcohol. When it was put to him that the Board of Trade distinction did not agree with his own view of synthesis, Sir William said that the distinction was an artificial one.

Mr. RONCA (Board of Trade) said that the 80 per cent. acid was produced from calcium acetate. Mr. SWAN said not all of it, because Sir William had said that a good deal of that which came on to the market was produced by the oxidation of alcohol. Mr. Ronca replied that that was synthetic. In reply to further questions, Sir William agreed that he put forward such a view of synthesis as would make practically every combination between an organic body and an inorganic body a synthetic product, with simple exceptions.

In further references to the articles written by Sir William in criticism of the calcium carbide decision, Mr. SWAN said that Sir William had set out to prove

that calcium carbide was typical both as an organic compound and as a synthetic compound. He had quoted various definitions in order to prove this. Sir WILLIAM POPE said what he had done was to set out such definitions as referred to this very limited aspect of synthesis—the joining together of carbon atoms—because that was the point he had to deal with ultimately. Mr. Swan suggested that it would have been very easy to have brought calcium carbide within the broad definition propounded in the present case, instead of adopting the narrower definition. Sir William Pope agreed that it would, but he preferred to adopt the narrower definition in regard to the calcium case. It did not follow that that narrow definition represented his full view of synthesis. The REFEREE remarked that, had Sir William not given evidence in this case, his previous definition might have been accepted as conclusive in Mr. Swan's favour, but they could not assume that now that Sir William had said that it did not represent his full view. Mr. Swan said that the narrower definition would not cover sodium formaldehyde sulphoxylate, because the reaction which had been described as characteristic of the production of that body did not involve the union of two molecules containing carbon. Sir William Pope agreed, but said he could not imagine anybody at the present time saying that no synthesis could exist unless more than one carbon atom came into the molecule.

#### WHAT IS A "FINE CHEMICAL"?

Asked by the REFEREE for his view as to what was a fine chemical, Sir William said the term "fine chemical" had never been properly defined, and the question of whether or not a substance was a fine chemical had to be decided more or less by reference to usage by the trade and to other considerations. In the case of sodium formaldehyde sulphoxylate, there being no evidence as to usage, he would be inclined to say that it was a fine chemical because it was not produced in huge quantities—he supposed that about 200 tons a year was produced in this country—and that the process was certainly a difficult one, requiring careful control and supervision. In reply to Mr. Swan, witness said he had not seen the process, but, from his own experience, it must require very careful supervision. He added that he would not like to think that much importance was attached to his opinion that this was a fine chemical. Questions were put by the Referee with regard to definitions of "synthesis," and witness said that some writers took a broader view than others. After all, it was a matter of what was most convenient as to where the line was drawn by various writers.

#### OTHER WITNESSES

Mr. R. B. BROWN (senior partner of R. B. Brown & Co., chemical manufacturers, London) said he had been employed by the Badische Anilin und Soda Fabrik when "Rongalite" was introduced into this country, about 1904. The products of the Badische Co., so far as their business in this country was concerned, were fine chemicals. Asked if sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate were fine or heavy chemicals, he said they were certainly not heavy chemicals, and he had never at any time thought of them as such.

In the course of cross-examination, Mr. Swan elicited that "Rongalite C (single)" was one of the products which Mr. Brown had tried to introduce into this country, and that in Mr. Brown's opinion it was a fine chemical. He pointed out that that product contained 50 per cent. bisulphite, and asked witness if he could name any other fine chemical, other than dyestuffs, of which half the chemical constitution was a foreign body. Witness said he could not at the moment, but probably there were many.

Professor J. N. COLLIE, F.R.S. (professor of organic chemistry at University College, London), expressed the view that sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate were organic compounds. Whichever way the zinc or the sodium salt were formed, it constituted a synthesis. He corroborated the evidence of Sir William Pope, and said that a synthetic compound was one which was produced by putting several things

together and getting a new compound. His considered definition of a synthetic compound he gave as "one that has been produced artificially in the laboratory by putting together substances that have been synthesised and re-arranging the molecules in a substantially important manner." Replying to questions by Mr. Swan, witness said he could find no definite definition of a synthesis in text-books.

#### EVIDENCE IN CAMERA

Evidence was then taken in camera with regard to Brotherton's process for the production of this material. Mr. PARRY, after having heard the evidence, said the process was substantially as he had understood it to be. He agreed that there was necessarily analytical control, in order to see that the process was carried on and stopped at the proper stages. He agreed that the evaporation had to be done at a high vacuum, and that it had to be done with care. But his view was that control was almost entirely analytical, and that the great care required in evaporation was almost entirely a physical matter, very similar to the evaporation necessary with such a well-defined heavy chemical as caustic soda and various other ingredients which had to be evaporated in a vacuum. In his opinion the process did not represent the manufacture of a fine chemical.

The hearing was then adjourned to March 13, when the witness who had given evidence with regard to Brotherton's process was cross-examined by Mr. Swan, in camera, and the remainder of the day was devoted to counsel's closing speeches.

Sir ARTHUR COLEFAX submitted that the whole basis of the complainants' case had gone. The case had been built up on the basis that sodium formaldehyde sulphoxylate was a body containing, in a state of combination, sodium sulphoxylate and formaldehyde—no doubt, he supposed, on the advice of Mr. Parry—but no chemist, with the exception of Mr. Parry, would say that this substance was formed by the combination of those two bodies. Again, there was no warranty for the statement that the active component of the combination was sodium sulphoxylate. Even Mr. Parry could not question that sodium sulphoxylate did not exist. Two witnesses had agreed that its existence was a theoretical conception only, and to talk about a theoretical conception being the active component of the body was, he ventured to submit, bosh.

#### THE QUESTION OF "SYNTHESIS"

Dealing with definitions of "synthesis," Sir Arthur submitted that the substances dealt with in this case fell within any definition, with one exception, and that was the idea that we must have two carbon atoms linked together. But that definition, wherever it was found, was a definition of the synthesis of an organic compound. It would be wholly wrong to restrict "synthesis" to cases in which the step by which we advanced involved the linking of carbon to carbon. It had never been so restricted, and unless that restriction was put on, then sodium formaldehyde sulphoxylate fitted in with every definition ever put before the Referee; it fitted in with the definition adopted in the formaldehyde case, with Mr. Parry's own definition, with any of the definitions to which Sir William Pope had referred, and certainly with Sir William's own view. There was a bulk of evidence that this particular reaction was a synthesis, and there was nothing at all against it unless the Referee applied a definition which no one else had applied, and which he himself had not applied in any decision he had given. Sir Arthur held that it had been admitted that the two substances were organic, and therefore they were clearly synthetic organic chemicals. These bodies also fell within the definition of a fine chemical as obtaining hitherto, at any rate when the matter was tested by those guides which the Referee had hitherto accepted. There were no trade catalogues for use in testing this matter, and in his view, therefore, the best test that could be applied was the process adopted. Counsel said the process was carried on in a factory which hitherto had never manufactured anything but fine chemicals, and he drew attention to the skilled scientific control needed and the purity of the product;

it was a mere accident of marketing that the body, as it came on to the market, was not 100 per cent. pure, but had been "let down." Also, *qua* price, method of quotation, and the amount consumed, it was marketed as something distinct from a heavy chemical, and, for the purposes of the Act the Referee had practically to divide chemicals into the two classes, fine and heavy. Sir Arthur then dealt with the evidence with regard to the use of sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate as analytical reagents, which, he submitted, showed that they had a substantial use as such. The Referee, however, said he did not think much of this point, and pointed out to Sir Arthur that he had much stronger ground than this. For instance, there was the synthetic point. In conclusion, referring to the process described by Mr. Parry as being the process carried on by the Calico Printers' Association, Sir Arthur said that such evidence was irrelevant.

#### MR. SWAN'S CLOSING SPEECH

Mr. SWAN then addressed the Referee, and held that, on a fair view of the evidence, it was right to say that sodium formaldehyde sulphoxylate had one of the characteristics of an additive compound, at any rate, because it was very easily decomposed into its constituent elements. Therefore the substance was outside even Sir William Pope's very wide definition. If he had understood the real basis of the evidence of the opponents' technical witnesses, it was that they regarded sodium formaldehyde sulphoxylate, not as an additive compound, but as a synthetic body, for the reason that it resembled closely ethyl sulphuric acid. At any rate, he took it that Professor Collie had based his view upon that. But the material point was that this ethyl body had been characterised as an undoubtedly synthetic body, because it was a step in a classical elementary synthesis. Apparently, for that reason, this body had become regarded as a synthetic body. But formaldehyde was not a step in a classical elementary synthetic reaction, and therefore the analogy was not an exact analogy. Sodium formaldehyde sulphoxylate was something akin to an additive compound, which would take it outside the most extensive definition both of Sir William Pope and Professor Collie. He asked the Referee not to accept either of the definitions put forward by Sir William Pope and Professor Collie, but to adhere to that originally adopted in the synthetic camphor case, which had been consistently applied in every decision, but which, he suggested, had perhaps not been fully apprehended.

In the first place, said Mr. Swan, the definitions put forward by Sir William Pope and Professor Collie were *ad hoc* definitions. They were improvised definitions, which suited very well what he might call the exigencies of this case. At the same time, he did not suggest they were wrong definitions, because "synthesis" could be defined in such a variety of ways. Sir William Pope's definition of "synthesis" clearly clashed with the camphor decision, because the oxidation of a body, according to Sir William's definition, was a synthesis, and according to the camphor decision it was not. Again, both these definitions were inconsistent with the basis of the decision in the formaldehyde case, and also with the definition in Richter's "Organic Chemistry" and the distinctions drawn therein. Richter's definition involved the union of two organic molecules.

Counsel then read at length from Sir William Pope's article on the calcium carbide case, and said that Sir William had adopted the accepted definition of synthesis, and had deliberately put that forward with the object of showing that calcium carbide was a synthetic substance. If any other definition had been the definitely accepted definition, it was clear that he would have adopted it; he had deliberately taken a definition which was generally accepted by chemists of repute. That definition, so far as it concerned the combination of molecules, was in absolute accordance with the definition on which the Referee's previous decisions had been based. The true view of the definition adopted by the Referee was that what it implied was the union of organic or carbon molecules. During further discussion between Mr. Swan and the Referee as to the proper interpretation of

the definition adopted by the Referee, Mr. Swan raised the question of onus at these inquiries. When a complainant, he said, came to ask that a particular body should be taken out of the list of dutiable articles, it was not known why it had been included in the list in the first place. He contended that the onus should not be upon the complainant to prove that an article should not be in the list, but should be upon the Board of Trade to prove that it should be. With regard to sodium formaldehyde sulphoxylate and zinc formaldehyde sulphoxylate not being analytical reagents, the Referee intimated that Mr. Swan need not worry about that.

Counsel then went on to deal with the fine-chemical point, and submitted that there was not an entire absence of trade evidence, as had been suggested. He called attention to the fact that Dr. Joshua had been asked to produce Boake Roberts' catalogue in which the substances were listed, but had not done so. Sodium formaldehyde sulphoxylate, apparently, was dealt with in the general catalogue, and not in that covering essences and fine chemicals; was that a negligible piece of evidence? In regard to purity, the substance as it came into the market contained 10 per cent. of a foreign body, and was much more impure than tartaric acid and other chemicals which were regarded as heavy. The commercial quality was a substantially variable product, and had foreign matter in it, and that ought to be sufficient to enable the Referee to come to the conclusion that this was not a fine chemical, especially bearing in mind the high degree of purity expected from some chemicals not regarded as fine. Then, with regard to quantity, there had been no evidence of any fine chemical of which the production reached 200 tons a year in this country, as is the case with sodium formaldehyde sulphoxylate. Dr. Joshua had said it would surprise him to know that his firm sold even one ton a year of a fine chemical. The manner in which it was used stamped it as a heavy chemical, and it was manufactured by heavy-chemical manufacturers. With regard to price, Sir Arthur Colefax, in a moment of enthusiasm, had put to Mr. Parry the suggestion that there were scores of fine chemicals lower in price than sodium formaldehyde sulphoxylate. When Sir Arthur had been handed a list of chemicals, it had turned out that the fine chemicals mentioned were all considerably more expensive, and ultimately Mr. Parry had had himself to suggest to Sir Arthur one fine chemical which was a little cheaper. So far as price was concerned, the general range of fine chemicals soared far above the price of sodium formaldehyde sulphoxylate.

With regard to manufacture, there was no evidence at all as to how Rongalite was manufactured. After all, Sir Arthur Colefax had tried to tie him (Mr. Swan) down to the exact complaint, but, if he were to be tied down, let him be tied down to Rongalite. The opponents had been at great pains to give evidence as to the manufacture of Formosul, but there was no evidence that they were manufacturing in the same way as were the German manufacturers. But, assuming the processes were the same, they had had processes paraded at this inquiry with a great show of technical care and supervision, and so on. But here was a process, in connection with which there were employed a foreman, a few labourers, and a chemist, supervising generally. Then there was an assistant chemist, who, he supposed, was actually in charge. His attention was taken up in performing certain analyses. It was not suggested that they were particularly difficult analyses; in fact, it was admitted that they were easy, and the tests applied were applied by the foreman. Did an imported article become a fine chemical because some particular manufacturer in this country spent a good deal of time and money on improving his process? Again, Ashworth's sold large quantities of this product, but there was no evidence that their particular process rendered the substance a fine chemical, and it should not be deduced, merely from the evidence of one particular manufacturer of this material—which was not the material imported—that this was a fine chemical.

This concluded the hearing. The Referee's decision will be announced in due course.

## Trade Report

42 Cannon Street, E.C.4, March 20.

THE Mincing Lane produce markets present few changes, and export business is very difficult, owing to the fluctuations in the franc. Sugar is lower, peppers are easier, and rubber has been selling below 1s. per lb., but shows a slight recovery towards the close. Zanzibar cloves are firmer for forward shipment. Cardamoms have been sold at much higher rates. Copaiba balsam, which has been unduly low in price, has advanced about 2d. per lb. in some quarters, and Matto Grosso ipecacuanha is rather easier, the demand having fallen off. Cascara sagrada has been sold at higher rates, and senega is firmer and in more demand. Cassia fistula is lower. Menthol is firm, and Tinnevelly senna is selling at full rates for the few parcels offered from second-hands. Citric acid has been in better inquiry and prices are higher in some instances. Mercury has had a sharp rise, and it is predicted that the outlook is for still very much higher prices. Crude antimony is dearer. Pharmaceutical and industrial chemicals are without any important changes, the demand all round being slow.

Higher	Firmer	Easier	Lower
Antimony, crude	Anise (star) oil	Barbitone	Cassia fistula
Arrowroot	Bleaching powder	Citronella oil (Ceylon)	Coconut oil
Cardamoms	Citric acid	Cocoa butter	Glauber's salt (comm.)
Cascara sagrada	Creosote oil	Epsom salt	Litharge
Copaiba	Geranium oil (Bourbon)	Ipecacuanha (Matto Grosso)	Palm oil
Ginger (Calicut)	Resorcin	Peppers	Pitch
Lemon oil	Senega	Sarsaparilla (native Jam.)	Red and white lead
Mercury	Sodium acetate		
Orange oil			

A drug auction will be held next Thursday, March 27.

## Cablegrams

NEW YORK, March 19.—Business is quiet. Cascara sagrada has advanced to 27c. and mercury to \$65.00 per flask. Mexican sarsaparilla is cheaper at 22c., balsam tolu has been reduced to \$1.90, and balsam peru to \$1.90 per lb. Short buchu leaves are cheaper at 72½c. per lb.

BERGEN, March 19.—The total catch of cod for the whole of Norway since the opening of the season amounts to 12,900,000, against 19,200,000 for the corresponding week of last year, and the yield of steam-refined medicinal oil is 29,078 hectolitres, against 39,551 hectolitres last year. Finest new non-freezing medicinal oil is quoted at 113s. per barrel c.i.f. principal U.K. ports.

## Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday :-

Place	Method of Quoting	Par of Exchange	March 12	March 19
Amsterdam	Fl. to £	12.107	11.52½—11.53½	11.57½—11.58½
Berlin ..	M to £	20.43	18½—19½ billions*	18½—19½ billions*
Brussels ..	Fr. to £	25.22½	12½—126	10½—10½
Caleutta ..	Pkr. rup.	24d.	16½d.—16½d.	16½d.—16½d.
Christiania ..	Kr. to £	18.159	31.85—31.90	31.47—31.52
Constantinople ..	Pst. to £	110	830—845	820—835
Greece ..	Dr. to £	25.22½	284—287	258—263
Italy ..	Lire to £	25.22½	101½—102	99½—99½
Kobe ..	Pkr. yen	24.58½	23½d.—23½d.	23½d.—23½d.
Lisbon ..	Escu.	5½d.	1½d.—1½d.	1½d.—1½d.
Madrid ..	Pts. to £	25.22½	34.05—34.15	33.20—33.25
Montreal ..	S to £	4.86½	4.44½—4.44½	4.42—4.42½
New York ..	S to £	4.86½	4.29½—4.29½	4.29½—4.29½
Paris ..	Fr. to £	25.22½	105½—106	84.40—84.50
Singapore ..	Per dol.	—	28½d.—28½d.	28½d.—28½d.
Switzerland ..	Fr. to £	25.22½	24.85—24.87	24.83—24.86
Vienna ..	Kr. to £	24.02	303,000—305,000	303,000—307,000

\* Nominal.

## Revue des Marchés

Sommaire des principaux mouvements des prix des drogues, essences, produits chimiques et pharmaceutiques sur le marché de Londres.

Abréviations d'usage employées pour indiquer les mesures de poids et de capacité:—Ton = 1016 kg.; Cwt.=50,8 kg.; lb.=453 gr.; oz.=28,34 gr.; Gal.=4546 c.c.

On signale très peu d'affaires en drogues, dont les cours se maintiennent avec certaines fluctuations, pourtant il y a des éléments de faiblesse. Le prix du baume de copahu a avancé de 2d. la lb. Faute de demande, l'ipéca (Matto Grosso) est en tendance faible. D'autre part, le cascara sagrada et le polygala sont en hausse. La demande pour l'acide citrique s'est un peu accentuée, ainsi que pour l'acide tartrique, et leurs cours restent très fermes. On signale une forte avance dans le prix du mercure, et l'on s'attend à des cotations encore plus élevées pour ce métal. En produits pharmaceutiques rien à signaler; le hydrate de chlormal, dont le prix a marqué un fléchissement, est en bonne demande. Les produits chimiques industriels sont lourds et on ne signale pas de changements importants; le chlorure de chaux est en tendance ferme, et les cours du litharge, de l'acétate de plomb et du minium de plomb sont en hausse.

## Zum Marktbericht

Überblick über die wichtigsten Preisveränderungen auf dem Londoner Drogen- und Chemikalienmarkt.

Abkürzungen:—Ton=1016 kg.; Cwt.=50,8 kg.; lb.=453 g.; oz.=28,34 g.; Gal.=4546 c.c.m.

In der vergangenen Woche lag der Markt äusserst still, und verkehrte in gedrückter Stimmung. Kopaiavabala, welcher lange Zeit billig zu haben war, zog im Preise um 2d. das lb. an. Brechwurzel (Matto Grosso) war billiger; dagegen Cascara Sagrada und Senega waren höher bewertet. Menthol blieb fest. Obwohl grössere Abschlüsse in weissem Muntok-Pfeffer, Abladungsware, gemeldet werden, neigten die Preise etwas nach unten. In Mazzis fanden grössere Umsätze statt, wobei der Preis um 2 bis 3d. das lb. anzog, was auch bezahlt wurde. Nelken (Zanzibar) verkehrten billiger. Für Zitronensäure zeigte sich verhältnismässig guter Begehr, wie auch für Weinstainsäure, und die Notierungen für beide sind recht fest. Der Preis für Quecksilber schnellte in die Höhe, und man rechnet mit noch höheren Forderungen in Zukunft. In pharmazeutischen Chemikalien fanden nur unbedeutende Umsätze statt. Chlormalhydrat, obwohl gefragt, war billiger angeboten. In Schwerchemikalien fanden nur kleinere Geschäfte statt. Für Chorkalk neigte der Preis nach oben; die Notierungen für Bleisalze, wie Bleiacetat, Bleiglätte und Mennigie, haben angezogen.

## Crude Drugs, etc.

ANNATTO SEED is steady, with Jamaica and Madras offering at 1s. 6d. on the spot, and March-April shipment at 1s. 4d. c.i.f.

ANTIMONY.—The market being still very bare, the tone seems quite strong at a further advance. English high-purity metal stands at about £65 per ton. On account of the very limited quantities of Chinese offering for shipment, for which terms are wanted at well above buyers' views, holders on the spot are now asking about £59. Antimony ores are dearer at upwards of 6s. per unit c.i.f. Crude is still scarce on the spot, the value probably being £34 to £35 per ton; white oxide of antimony is £34 c.i.f.

ARROWROOT.—At auction 1,750 barrels St. Vincent offered and 600 sold, comprising good to fine grocery at 11½d. to 1s. 1d.; fair to good manufacturing, 10d. to 10½d.; and common, 9½d. per lb.

BALSAMS.—Balsam tolu is unchanged at 8s. 3d. Genuine B.P. Peru of direct import is scarce on the spot, and is worth 8s. 6d. per lb., at which small sales have been made. Copaiba balsam is rather dearer, some asking 1s. 8d. to 1s. 9d. per lb. for filtered Maranham in cases; and 1s. 8d. for B.P. Maracaibo.

BENZOIN.—Good almondly Sumatra firsts are offered at £10 10s. A new lot of well-packed thirds can be had at £8 per cwt., and good storax flavoured seconds can be had at £9. Palembang is 60s. to 65s.

CADMIUM.—The very liberal quantities coming forward are having a subduing effect on the market, but there is a fairly good trade demand, the terms quoted ranging

from about 2s. 3d. to 2s. 9d. per lb., according to quantity.

**CAMPHOR (REFINED).**—Japanese slabs are dull of sale at 3s. 4d. per lb. on the spot, and to arrive sales are reported at 3s. 1d. to 3s. 1½d. c.i.f.

**CARDAMOMS.**—At auction on March 13 69 cases Indian Mysore sold with good competition at much higher prices, including fine bold pale bleached, 8s. 8d.; medium bold ditto, 7s. 9d.; small ditto, 6s. 5d.; medium to bold split, 7s. 4d. to 7s. 5d.; small, 5s. 9d.; medium to bold brown, 7s. 2d. to 7s. 11d.; smalls, 5s. 10d.; four cases seed retired at 6s. 6d., the best bid being 6s. 2d.; 45 cases 20 bags green Bombay Aleppy were bought in at 5s. 6d. per lb.

**CASCARA SAGRADA** is dearer with spot sales of new bark at 147s. 6d., two-year-old at 155s., and three-year-old at 160s. to 165s. The following c.i.f. offers have been received from New York: New crop, 27c. per lb. (=140s. 11d. per cwt. taking the \$ at 4.28); 15 tons 1923 crop at 28c. (=146s. 6d.); ten tons two- to three-year-old at 29c. per lb. (=152s. 1d.); and three to four tons three- to four-year-old at 33c. (=172s. 8d. per cwt.). According to the London drug statistics, there were no landings during February, while the deliveries were 24 tons, leaving a stock of 44 tons against 34 tons at the end of February 1923. The "North Western Miller" has brought 143 bags from San Francisco to London.

**CASSIA FISTULA** is cheaper, good pod offering at 35s. per cwt.

**CHAULMOOGRA OIL.**—The spot price of genuine Taraktagenos Kurzii is from 3s. to 3s. 3d. per lb., and to arrive 2s. 3d. c.i.f. is quoted.

**CINCHONA.**—At the auction to be held in Amsterdam on March 26 a total of 33,068 kilos. Java pharmaceutical bark will be offered, consisting exclusively of Succirubra, and representing the equivalent of 848 kilos. quinine sulphate.

**CLOVES.**—Zanzibar remain quiet at from 1s. 1d. to 1s. 1½d. per lb. on the spot as to quality. To arrive, sales of March-May shipment have been made at 1s. 0½d. per lb., c.i.f., and April-June at 1s. 0½d. being firmer. The weekly wharf statistics show 2,716 bales landed and 510 delivered, leaving a stock of 40,417 bales, against 1,473 bales in 1923 and 13,810 bales in 1922. At auction on Wednesday 100 bales Madagascar were bought in at 1s. 4d.; 102 bales Zanzibar offered and 48 sold at 1s. 2½d. for good fair, and 1s. 1d. for barely fair; 374 bales and 123 bags water and smoke damaged sold on underwriters' account at from 4d. to 4½d.; 25 packages stems sold at 1¼d.

**COCHINEAL** remains firm at from 1s. 11d. to 2s. per lb. for good silver or dark grain.

**COCOA BUTTER** is slightly easier at 1s. 3d. per lb. for prime English; C.F.R. and other makes at 1s. 2½d. per lb.

**COD-LIVER OIL.**—Our Bergen correspondent writes on March 15 that the fishing continues with a moderate catch only. The output of all the Norwegian fisheries compared with that of previous years is as follows:—

	Catch of	Steam refined	Livers for
	cod.	cod liver oil.	crude oils.
To Mar. 8, 1924 ..	9,300,000	20,987 hectol.	3,200 hectol.
.. 10, 1923 ..	14,300,000	28,910	4,700
.. 11, 1922 ..	11,400,000	23,000	3,100
.. 12, 1921 ..	13,700,000	24,800	4,200
.. 6, 1920 ..	6,000,000	13,700	1,600

The market is unaltered, with finest non-freezing steam-refined oil offering at 11s. per barrel c.i.f. London. The total quantity of medicinal cod-liver oil exported from Norway to the United Kingdom in 1923 was 23,216 hectolitres. London agents report the market as steady with a fair amount of inquiry, the price of new Lofoten non-congealing oil being about 11s. per barrel c.i.f.

**IPECACUANHA** is slightly easier with sellers of fair Matto Grosso at 9s. 9d. per lb. The London stock at the end of February was down to 177 bales, of which 161 were Matto Grosso; the deliveries in February were 71 bales and the landings 10 bales Matto Grosso.

**LIME JUICE.**—Good pale raw Jamaica is firm at 2s. 9d. per gallon.

**MENTHOL** is firm with small spot sales of Kobayashi-Suzuki at 60s. per lb., less 2½ per cent., and business

is reported afloat at 57s. 6d. net c.i.f.; January-March is quoted at 57s., and April-June at 56s. c.i.f.

**MERCURY.**—The market has been rampant, a further considerable advance having been recorded since the close of last week, although the demand has not been very brisk. On Tuesday we heard of business having been done at £11 5s. to £11 10s. per bottle, and the range of quotations on Wednesday was about £11 7s. 6d. up to £11 10s. It has been difficult to find sellers, while there is virtually no stock actually available for sale at the moment. The market is talked higher, due to the fact that the producers are fairly well sold up and the Spanish mines are rather badly handicapped in their operations.

**PEPPER** has been quieter this week with fair black Singapore offering on the spot at 5d. per lb. To arrive, sellers quote March-May and April-June shipment at 4½d. per lb., c.i.f. London, f.a.q. Fair Tellicherry on the spot is 5d., and Aleppy 4½d. per lb. White Muntok is easier, with sales at 7½d. per lb. on the spot. To arrive, the sales include February-April at 7½d., March-May at 7½d., April-June 7½d. c.i.f.

**RUBBER.**—The sudden break in prices, which the market has been fearing for some weeks' past, has, at last, taken place, and there has been such a pronounced weakness that even at the lower level little interest has been taken by buyers. The collapse is mainly due to heavy liquidation by outside holders and the heavy "bear" selling, which has made the decline even more severe. The lowest price at which spot was sold was 11½d. per lb. on Monday, but since then prices have improved, and at the close there was fully 7d. per lb. recovery from the worst. It is impossible to buy first-hand rubber at the present reduced level, and, we believe, there has been an agreement between the principal first-hand importers to withhold their supplies from the market. The nervous tone is still apparent, and it is possible that further legislative action will have to be taken by the authorities to prevent a further slump in values, such as was experienced in 1922, when spot fell to the record low price of 6d. per lb. The statistical position, however, remains good, and on the week there was a further decrease of 689 tons in the stocks. The London stock now stands at 55,286 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard crépe and ribbed smoked sheet, spot and March, 1s. 0½d.; April-June, 1s. 0½d.; July-September, 1s. 0½d.; October-December, 1s. 1d. per lb.

**SEEDS.**—The seed market is still quiet, with prices the same as last week. The following are spot prices:—

Spanish ANISE, 75s., and Russian, 62s. 6d. per cwt.

**CANARY SEED.**—The demand has fallen off; sellers are asking 28s. 6d. per cwt. for Mazagan, but there are no buyers. CORIANDER SEED, sound Morocco 40s., wormy 35s.; CUMIN SEED, Malta 115s., Morocco 112s. 6d.; DILL SEED, 21s. 6d.; FENNEL SEED, Indian, 40s. to 42s. 6d.; FENUGREEK SEED, Morocco 23s., and Spanish 19s. 6d.; HEMP SEED, Manchurian, 24s. 6d.; LINSEED, Morocco, 26s. 9d.; MUSTARD SEED, English, 36s. per cwt.

**SENEGA.**—The recent improvement is maintained, with higher prices reported from America; spot sellers quote from 3s. 1d. to 3s. 2d. per lb.

**SELLAC.**—The market has been quiet throughout, usual standard TN orange quality closing at 285s. to 290s.; fine to superfine second orange is 320s. to 380s.; AC cakey, 290s.; and GAL, 275s. Futures have been inactive, the closing values being 280s. for May and 275s. for August.

**SPILL.**—Good pale offer at 27s. 6d. per cwt. down to 20s. for ordinary on the spot.

**STARCH PRODUCTS.**—Dutch farina is 20s. 10½d. per cwt. on the spot, and to arrive 19s. 10½d. per cwt. f.o.b. is quoted for prompt shipment. American maize starch powder is steady at 18s. 6d. per cwt. on the spot, and Dutch is 21s. Dextrin is 25s. for superior Dutch and 24s. for No. 2. American canary is 22s. and white 21s. 6d. on the spot. Best rice starch crystals offer at 40s. for English, 33s. 6d. per cwt. for Continental, and 21s. for American on the spot.

**TRAGACANTH.**—Good flaky white can be had at from £30 to £32 per cwt. as to quantity.

TURMERIC.—Madras finger is difficult to find at 97s. 6d. per cwt.; to arrive, business has been done at 60s. to 65s. c.i.f. for Madras finger. Cochin split bulb is 25s. to 27s. 6d.

### Essential Oils

BUSINESS is quiet and price changes are unimportant. Star anise oil is dearer and c.i.f. quotations are again coming forward. Lemon and Sicilian orange oils are dearer. Bourbon geranium is firmer on the spot. Ceylon citronella is dull and easier. Java, however, remains firm.

The following are the quantities and values of the essential oils (other than turpentine) imported into and re-exported from Great Britain during February, 1924, compared with the same month in 1922 and in 1923, also for the two months ended February 29, 1924, and February 28, 1922-3:-

		1922	1923	1924
February imports (other than turpentine) ..	lb.	254,067	292,529	325,259
value	£62,353	£68,840	£85,136	
Jan.-Feb. imports do. ..	lb.	545,887	685,304	651,364
value	£130,577	£155,522	£174,223	
February re-exports do. ..	lb.	86,129	60,529	97,275
value	£28,929	£26,339	£39,878	
Jan.-Feb. re-exports do. ..	lb.	154,179	126,919	189,052
value	£59,998	£54,761	£65,322	

ANISE (STAR).—"Red Ship" is quiet but firmer on the spot at from 2s. 4d. to 2s. 4½d. per lb. Quotations from the source are again made, the price being 2s. 4½d. c.i.f.

BERGAMOT.—The c.i.f. price to arrive is firm at from 16s. to 16s. 6d. as to brand. Spot prices are about the same level.

BOIS DE ROSE (FEMELLE).—Spot sales have been made recently at 15s. 6d. per lb.

CASSIA.—Spot is steady at 8s. 6d. per lb. for 80 to 85 c.a. Parcels in course of landing have sold at 8s. 3d. landed terms. Business has also been done in parcels, near at hand. The price quoted is 7s. 9d. to 7s. 10½d. c.i.f. to arrive.

CINNAMON.—Ceylon leaf on the spot is firm at 6d. to 6½d. per oz. Forty-three cases have arrived at London from Galle. Offers for shipment are again being made, with sellers at 5½d. c.i.f. and buyers at 5d.

CITRONELLA.—Ceylon is dull and easier. Spot is quoted at 3s. 6d. to 3s. 7d. per lb. March-April shipment at 3s. 2½d. c.i.f. Java oil is firm at 4s. 9d., with sellers of c.i.f. to arrive at 4s. 7½d.; May-June, 4s. 6½d.; July-December has sold at 4s. 4d. c.i.f.

CLOVE.—English distilled oil is firm on the spot at from 8s. 9d. to 9s. per lb., according to seller.

EUCALYPTUS on the spot is quiet at from 2s. 2d. to 2s. 3d. per lb. for 70 to 75 per cent. *E. Citriodora* is scarce at from 8s. to 9s., according to quantity.

GERANIUM.—Bourbon on the spot is rather firmer at 30s. to 32s. 6d. per lb. Algerian is quoted at similar rates.

LAVENDER.—French oil of 40 per cent. natural esters has been selling in from 1- to 2-cwt. lots at 26s. per lb., at which price there are further sellers.

LEMON has undergone a further advance, and for well-known brands from 3s. 3d. to 3s. 5d. c.i.f. is quoted for shipment. On the spot sellers quote 3s. to 3s. 3d.

PALERMO, March 13.—The yield of lemon oil is below normal this year, and as pressings were about six weeks to two months late in starting, the demand for spot goods has been more active than usual. The demand from abroad continues to be good. Locally there are buyers at higher prices than those last quoted, but sellers are very reserved.

LEMONGRASS.—Cochin on the spot is quiet at 3s. 8d. per lb., and for shipment at 3s. 6d. per lb. c.i.f.

LIME.—West Indian distilled is very firm on the spot. Limited supplies are available at 4s. 6d., but for quantity probably 4s. 7½d. to 4s. 9d. would have to be paid. Hand-pressed is steady at 7s. 6d.

MINT.—Japanese dementholsed Kobayashi-Suzuki is scarce on the spot; sellers of a few cases quote from 17s. to 17s. 6d. per lb. Arrivals of 75 cases have been noted recently. Shipment afloat is quoted at 15s. 6d. c.i.f.

ORANGE.—Sicilian sweet is dearer to come forward at from 12s. 9d. to 13s. 6d. c.i.f. to arrive. Spot is offered at from 12s. 6d. to 13s. West Indian is steady at 9s. 6d. spot.

PALMAROSA.—Spot is steady at 17s. 6d. per lb.

PATCHOULI.—Singapore oil on the spot is unchanged with sales at from 19s. to 20s. per lb. Mysore distilled oil is 27s.

PEPPERMINT.—American natural tin oil is quiet at 18s. 6d. per lb. on the spot.

SANDALWOOD.—East Indian B.P. oil is steady on the spot at 24s. to 25s. per lb., according to quantity and sellers.

### Pharmaceutical Chemicals, etc.

A DISTINCT lack of good business has been noticeable in this market during the last few weeks, and in consequence competition has been keen. Most orders booked have been at rates something under the quoted figures. There has been a slight fall in prices of late, but there is a fairly steady undertone, due, no doubt, to the generally firmer conditions on the Continent. On April 1 port dues and landing charges advance considerably, and this, with the generally higher prices for forward delivery from Europe, especially Germany, point to rather firmer conditions eventually.

ACETANILIDE has been slow in moving off. The quoted rate is steady up to 3s. per lb., but the little business done has probably been at about 2s. 10d.

AMIDOPYRIN remains dull, with dealers quoting at about 13s. 6d. per lb.

AMMON. BENZOATE is well maintained as offered by dealers at about 3s. 9d. per lb.

ASPIRIN.—Last week's cheaper rates of from 3s. 6d. to 3s. 7d. per lb. for good brands are still ruling the market, which is quiet. Business has been patchy and of no great volume. An improvement in business would probably bring with it firmer conditions.

BARBITONE at the lower prices of 15s. to 16s. per lb. shows little life, and is weak.

BENZOIC ACID (B.P.).—There is plenty of real business on the market, but the Board of Trade continue to refuse to issue permits for adequate quantities. As a result, prices are maintained at the famine level of about 4s. to 4s. 6d. per lb., the latter price for small lots. It is difficult to understand the official attitude of refusing to allow imports.

BENZONAPHTHOL holds up at the recently advanced price of 6s. to 6s. 3d. per lb.

BROMIDES.—Supplies of potassium and sodium appear to be ample, while the demand remains slow. Actual business has been at cut rates and generally well below those quoted. Ammonium is fairly steady at about 10d. per lb.: potassium, B.P. crystals and granular, about 7½d. to 8½d. per lb.; sodium, B.P. crystals and granular, 8½d. to 9d. per lb. A lot of damp sodium is being offered.

CALCIUM LACTATE has met with some business at keen rates. Dealers quote at about 1s. 10d. per lb., but for finest English make 2s. 6d. is wanted.

CHLORAL HYDRATE.—Sales have been moderately good here, but the prices paid have usually been something under the quoted rate of 3s. 9d. per lb. for duty paid. German prices have declined.

CITRIC ACID (B.P. crystals).—The spot price is fully maintained at or slightly over 1s. 5½d. per lb., so far as quotations are concerned. Yet it seems that actual business for good-sized lots would be at a little less. Italian prices are not competitive. The old export business in this product is not now in evidence, but should it revive and the home demand come along as it should at this time of the year, prices are almost bound to harden.

CREOSOTE (B.P.).—Dealers are doing some occasional business at about their quoted rate of 2s. 5d. per lb.

CREOSOTE CARBONATE continues to show little life; dealers quote at the nominal figure of 6s. per lb.

GUAIACOL CARBONATE.—The position is well maintained, with dealers' price in the region of 12s. 6d. per lb.; supplies not large.

HEXAMINE.—Despite the lack of demand of late, dealers are not inclined to accept much less than their quoted rates of 3s. 9d. to 4s. per lb. for quantities; large supplies are available.

**HYDROQUINONE** continues to find some business, and dealers' prices are steady at about 3s. 9d. per lb.; slightly less for quantities.

**METHYL SALICYLATE** is offering round about 2s. 7d. to 2s. 9d. per lb., in carboys, and some business has been done close up to these figures.

**METHYL SULPHONAL** is rather firmer, with dealers asking 2s. 6d. per lb. Supplies are scarce.

**PARAFORMALDEHYDE** has been slow in moving off as quoted by dealers at about 3s. 6d. per lb.

**PARALDEHYDE** has been a little more active, with the selling price rather better at 1s. 4d. to 1s. 6d. per lb.

**PHENACETIN**.—Business has again been of small dimensions, but dealers' prices are not likely to fall much below the present levels of 6s. 6d. to 6s. 9d. per lb.

**PHENAZONE** has had a better week and prices from dealers are now very steady at about 7s. 6d. to 7s. 9d. per lb., with a tendency for the spot position to harden a little. These prices are much lower than forward offers.

**PHENOLPHTHALEIN** is perhaps a shade firmer, with most offers in the region of 7s. 3d. to 7s. 6d. per lb.

**POTASSIUM PERMANGANATE** (B.P.).—British make continues to be quoted at about 8½d. per lb. Business, however, is being done at cheaper rates for quantities.

**POTASSIUM SULPHOGUAIACOLATE** remains neglected. Dealers quoted nominally at about 6s. 6d. per lb.

**RESORCIN** is rather firmer and tends to advance from 6s. to 6s. 3d. per lb.

**SALICYLIC ACID** has been steady, with a small business, dealers' prices being close up to 2s. 2d. per lb. Makers quote down to 1s. 10d. per lb. in ton lots.

**SALOL** is offering on spot at about 3s. 9d. to 4s. per lb., but there has not been much demand during the past week.

**SODIUM BENZOATE** has been in better supply, but there is plenty of business for this product. The price is so far maintained at about 3s. 3d. per lb.

**SODIUM DIETHYLBARBITURATE** is nominal at 20s. per lb. as quoted by dealers; no business on the market.

**SODIUM SALICYLATE**.—In some directions the prices quoted are said to be at very cut figures. B.P. crystals, 2s. 7d. to 2s. 10d.; powder, B.P., about 2s. 7d. to 2s. 10d. per lb. Market is very irregular.

**SULPHONAL** varies on offer from about 18s. 6d. to 20s. per lb., but little interest is shown in any offers.

**TARTARIC ACID** (B.P. crystals).—Dealers' prices seem to be about the cheapest at from 1s. 1d. to 1s. 1½d. per lb., less 5 per cent., and although there has been continued inquiry, actual business seems to be slow and small; market is steady.

**TERPIN HYDRATE** remains at the old figure of 1s. 9d. per lb., with occasional business on the market.

**THYMOL** is unchanged at from 13s. 3d. to 13s. 6d. per lb. on a quiet market.

The following average prices are quoted by British makers: Camphoric acid, 20s. to 18s. per lb. Bismuth salts: Carbonate, 14s. 9d. to 12s. 9d.; subnitrate, 12s. 9d. to 10s. 9d.; citrate, 13s. 4d. to 11s. 4d.; salicylate, 12s. 2d. to 10s. 2d.; cadmium sulphate, 4s. 6d. to 4s. 3d.; ether, s.g. 0.720. 1s. 6d. to 1s. 2½d.; purif. ex S.V.M., 2s. 2d. to 1s. 10d. per lb.; iron ammon. citrate, B.P., 2s. 3d. to 1s. 11d.; iron ammon. citrate, U.S.P., 2s. to 1s. 8d.; iron ammon. citrate, green, 3s. to 2s. 6d. per lb.; phosphoric acid, s.g. 1.750, 1s. to 11d. per lb.; potass. acetate, 1s. 4d. to 1s. 1d. per lb. Potash citrate, 2s. to 1s. 8d.; sodium citrate, B.P.C., 1s. 9d. to 1s. 5d.; sodium citrate, U.S.P., 2s. to 1s. 8d.; sodium nitro prusside, 16s. per lb.; sodium sulphide, pure recryst., 1s. 2d. to 10d.; terebene, 2s. 8d. to 2s. 6d. per lb.; boric acid, B.P., crystals, £54 per ton, powder, £58, carriage paid to any station in Great Britain; pyrogallic acid, 6s. per lb. for 28-lb. lots of crystals; tannic acid, 3s. per lb. for B.P.; amidol, 9s. per lb., delivered; ammonium carbonate, £37 per ton; chloroform, 2s. per lb. in evt. lots; potassium iodide, 16s. 8d. to 17s. 5d. per lb.; soda metabisulphite cryst., 37s. 6d. to 60s. per cwt. net; tartar emetic, 1s. 4d. per lb. Makers' prices for mercurials are as follows: Ammoniated lump (white precipitate) 4s. 2d., powder 4s. 3d., extra fine powder 4s. 4d.; bichloride lump B.P. (corrosive sublimate), 3s. 1d.; bichloride powder or granular, 2s. 11d.; chloride B.P. (calomel), 3s. 6d.; red oxide cryst. B.P. (red precipitate), 4s. 10½.; red oxide,

levig. B.P., 4s. 4d.; yellow oxide, 4s. 2d. per lb.; one-cwt. lots are 1d. per lb. less. Makers have made no alteration in spite of sharp advance in quicksilver; it will be remembered the previous alteration was a reduction of 6d. per lb.

#### Industrial Chemicals, etc.

*London, March 19.*

THE slowness of business is the chief matter for comment this week, and from all quarters reports are unanimous on this point. The tone of the market, however, is fairly steady, and nothing in the way of radical changes are recorded. Owing to advances on the Continent one or two products are rather dearer.

**ACETIC ACID**.—The spot market holds up well, although business is still of small volume; dealers' prices are unchanged. 80 per cent. technical, £47; 80 per cent. pure, about £50, in barrels; 98 per cent. glacial, £70 per ton, in glass demijohns, ex wharf, London.

**ACETONE**, which fell away last week, remains quiet and the tone is far from steady, quoted in the region of £105 per ton for B.G.S.

**ARSENIC**.—At the moment there is no real market; quoted prices from the Cornish mines are nominal at about £61 to £62 per ton, f.o.r.; business might be accepted at less; delivered London is about £63 10s. The trend depends largely on America; should new buying come along from that quarter the market would no doubt harden.

**BARIUM CHLORIDE** has been in occasional request, with prices in the region of £14 to £14 5s. per ton for 98 to 100 per cent.

**BLEACHING POWDER** is rather dearer from dealers, whose offers are now close up to £10 10s. per ton for 35 to 37 per cent. chlorine.

**BORAX**.—**BORAX GLASS** and **BORIC ACID**.—British makers' and dealers' prices are unchanged.

**COPPER SULPHATE**.—The official returns of export for last month made a good showing, amounting to 12,216 tons, compared with 8,575 tons for the same month last year, while the aggregate for the two months represents 17,335 tons, against 11,666 tons for the corresponding period last year. The market lately has been very quiet, at about £25 per ton f.o.b. for casks, less 5 per cent., while the cost of copper has come down notably.

**CREAM OF TARTAR** has been more called for, and dealers' prices are at the better rates of 84s. to 85s. per cwt., less 2½ per cent. for 99 to 100 per cent., in one-ton lots.

**EPSOM SALTS** are a shade down on the week, with the ex store price from £5 per ton, in bags, for commercial.

**FORMALDEHYDE** meets with but small business, with dealers finding it difficult to obtain their quoted rate of about £62 per ton for 40 per cent. volume.

**GLAUBER'S SALT** of commercial quality has declined on the week, with the market dull, and quoted at about £3 15s. to £4 per ton, ex store.

**LEAD ACETATE**.—Further advances are notified from the Continent, and spot values have moved in sympathy. Brown, £46; white, £47 per ton.

**LEAD PRODUCTS**.—After a further considerable rise last week in white lead and lead-oxides, the severe collapse which has taken place in the price of the metal of about £5 from the recent extreme level caused unusually big reductions to be made on Wednesday in the above-mentioned home-made products. Red lead and litharge were put down £5 per ton to £49 for the home trade and export. White lead in oil was reduced £3 15s. per ton to £55 10s., and dry white lead £3 10s. to £50 f.o.b. The trade of late has been dislocated.

**LITHOPONE** is offering on spot and has been selling fairly freely at about £22 10s. to £23 per ton for 30 per cent. Continental red seal.

**POTASH CAUSTIC**.—Spot holders have been doing business in small parcels at about £31 per ton for 88 to 92 per cent. solid, in drums.

**POTASSIUM CARBONATE**.—There has been plenty of inquiry about and a little business, with actual selling prices perhaps a little under quoted rates. 90 to 92 per cent., about £24 to £24 5s. per ton; 96 to 98 per cent., about £26 to £26 10s. per ton.

**POTASSIUM CHLORATE**.—The spot quotation is about 3½d. per lb., with a shade less mentioned for forward delivery in quantity.

**POTASSIUM PERMANGANATE** is steady, with British make commanding the market as quoted at about 7½d. per lb.

**POTASSIUM PRUSSIATE** remains slow in demand, with dealers' prices for British steady at 8½d. per lb. for yellow

**SAL AMMONIAC**.—Dealers holding spot supplies have done a fair amount of business in smallish quantities. The tone of the market holds steady, with a tendency to advance

slightly. Dog-tooth crystals, £45; medium, £40; fine white crystals, £27 to £27 10s. per ton.

**SODIUM CAUSTIC.**—Dealers' and British makers' prices to domestic consumers on contract are unchanged.

**SODIUM ACETATE.**—The spot position is rather firmer at about £24 10s. per ton, with supplies short.

**SODIUM BICARBONATE.**—British makers' price for home trade only is at the old rate of £10 10s. per ton, in bags, carriage paid.

**SODIUM BICHROMATE** is level on the week, with British makers quoting to home trade at 4½d. per lb.

**SODIUM CARBONATE** (washing crystals) from British makers is offered to home trade only at £5 5s. per ton, in bags, carriage paid; 58 per cent. light alkali, £6 15s. per ton, in bags.

**SODIUM HYPOSULPHITE.**—Dealers have done fairly well here and their prices are maintained on a steady market. Pea crystals, about £15 per ton, in one-cwt. kegs, ex store; commercial quality, about £10 per ton, in casks.

**SODIUM PRUSSIATE** remains dull, with dealers offering British at about 5d. per lb.

**SODIUM SULPHIDE** is steady on spot, but there is little business at present. 60 to 62 per cent. solid, £14 10s. ditto, broken, £15 10s. per ton, in drums.

**SULPHUR.**—The demand is moderate, with a fairly regular business passing. Crude American or Sicilian is obtainable at £6 15s. per ton delivered Manchester. Sicilian flowers are quoted £9 5s. to £9 7s. 6d., and roll £7 15s., delivered, ex warehouse, London.

**ZINC OXIDES.**—British makers are quoting at about the following figures: B.P., £55; white seal, about £47 10s.; green seal, about £42 10s.; red seal, about £38 per ton, f.o.r. works.

**COAL-TAR PRODUCTS, ETC.**—There are one or two alterations of a minor character to record. The tone keeps steady, and business, if anything, has been somewhat better. Pitch continues very flat. ANILINE OIL is 7½d. to 8½d. per lb., naked, ex works; British makers continue to quote at these rates. ANILINE SALT is steady but quiet at British makers' prices of 7½d. to 9d. per lb., naked, ex works. BETANAPHTHOL has been more inquired for and prices are in the region of 1s. 1d. to 1s. 2d. per lb. TOLUOL.—There is no change in British makers' prices. Pure, 1s. 8d. to 1s. 10½d.; 90's, 1s. 4½d. to 1s. 7d. per gallon. XYLOL.—Pure is 3s. 3d.; commercial, 2s. 3d. per gallon. British makers continue to quote at these figures. CREOSOTE OIL is steadier after last week's cheaper rates, but there is still little evidence of good business being done; 8½d. ex works, 9½d. per gallon, f.o.b. CARBOLIC ACID crystals hold steady and the demand has again been fairly satisfactory, at about 8d. to 8½d. per lb. for 39° to 40° C. in crystals in large-bulk packing. CRESYLIC ACID has improved just a little, with some activity recorded; quoted from 1s. 11½d. to 2s. 1d. per gallon. NAPHTHALENE has been called for moderately well this week, and dealers are quoting in the region of £16 to £16 10s. per ton. PYRIDIN is holding up well at the better rates recently recorded. Dealers offer from 16s. and upwards per gallon. HEXAMETHYLENE is steady at 8s. 9d. per gallon on a dull market. Pure METHYL ALCOHOL is rather firmer at the unchanged price of about £80 per ton, in drums, ex wharf. PITCH.—There is little change to report, except a further decline in the nominal value down to 65s. per ton, f.o.b. East Coast. Business is still negligible. The trend of this market is very uncertain and does not look hopeful. WOOD TAR is unchanged at £5 to £6 per ton, according to quality.

#### Fixed Oils, etc.

MOST items have been much quieter and prices in many directions show a decline. Palm oils have moved down considerably. Cotton, groundnut and palm kernel oils have been dull features. Linseed is now steady, and turpentine shows a slight improvement. ACID OILS.—There is no further advance, but the market holds firm. Coconut and palm kernel, 42s.; groundnut, 41s.; soya, 40s., all spot. CASTOR stands firm, with the recently advanced rates well maintained. Pharmaceutical, 70s.; first pressings, 65s.; second pressings, 64s., all spot, in barrels in not less than one-ton lots. COCONUT has shown no revival and prices show a further fall. Deodorised, spot, 53s.; Ceylon, 45s. 6d. c.i.f.; Cochin, 53s. 3d. c.i.f. COTTON.—Prices are, so far, fairly well maintained, but with the market dull the position is by no means steady and tends to weaken. Deodorised, 54s.; common edible, 51s.; soap-making, 49s.; crude, 44s. 6d., all spot. GROUNDNUT is quiet, with prices quotable at level rates on the week. Deodorised, 59s.; crude Oriental, 53s., all spot. LINSEED (raw, naked).—Prices for spot and near positions show a further weakening, but quotations for late

delivery are about level on the week. The market has been mostly quiet, but the tone is now fairly steady. On spot, 39s.; March, 38s.; March-April, 38s.; April, 38s.; May-August, 37s. 6d.; September-December, 37s. Hull, on spot, 38s.; March, 37s. 6d.; March-April, 37s. 9d.; May-August, 37s. 6d.; September-December, 36s. 9d. Crushing operations are now being carried on a full scale, and with plenty of seed coming along and offering by River Plate shippers the demand for the oil-product has been cautious, thus keeping down prices at a more reasonable level. Our exports last month amounted to 2,165 tons, against 1,830 tons same month last year, making a total of 3,975 tons for the two months, against 4,686 tons same period last year. PALM KERNEL.—A further reduction is recorded after a week of very poor business. Deodorised, 48s.; crude, 44s., all spot. PALM.—After a long spell of activity and firm markets, with high prices ruling, the position is much easier this week. The market closes quiet and still rather unsteady. Lagos, 39s.; softs, 39s.; mediums, 38s. 3d.; hards, 38s.; bleached, 41s. 6d., all spot. RAPE.—A dull market all the week is reported, but prices are being maintained. Refined, about 53s.; crude, 50s. 6d., all spot. SOYA.—Values are unchanged, with the market still of little interest to buyers. Deodorised, 50s. 6d.; crude, 47s. 6d., all spot. TURPENTINE (American).—Business has been rather better of late and prices show a slight improvement. London stocks are returned at 20,525 barrels American and 815 French. On spot, 77s. 9d. per cwt.; March-April, 78s.; July-December, 72s. (paid). WOOD.—Hankow, in barrels, remains dull, with offers unchanged at 92s. on spot.

#### Java Coca Exports

DURING the year 1923 Java exported 907,335 kilos. of coca leaves, against 1,283,503 kilos. in the preceding year. The following table shows the countries of destination, with the amounts imported, during the past two years (in kilograms):—

	1922	1923
America	...	25,843
Germany	...	8,800
Holland	...	903,290
Japan	...	509,073
Spain	...	378,307
		363,619
	1,250	—

#### Export Tax on Spanish Olive Oil

REGARDING the tax recently imposed on exports of olive oil from Spain, it appears that during recent months the large demand for olive oil for export, and the large quantities sent to foreign markets, together with the poor crop in other countries, resulted in an increase in prices, and many petitions were presented to the Government to prohibit exports. The Government have, however, decided, in order not to lose the important foreign market, and to hold the balance evenly between the export and the home markets, to impose an export tax on olive oil which will vary according to the fluctuations in the average monthly price of the ordinary kinds of olive oil with an acidity not higher than four degrees. The tax, which took effect on February 11, ranges from 10 to 50 pesetas per 100 kilos. [Peseta nominally 9½d.]

#### Ceylon Citronella Oil

A correspondent in the "Ceylon Observer" states:—

"The citronella industry is one which is of vital importance to a very large rural population in the Southern Province. The industry has not received due attention from the scientific staff at Peradeniya. Even at the present time when there is a full staff of recruited officers no attention is paid to improve the cultivation, distilling or exporting of citronella oil. At the last meeting of the Board of Agriculture the matter of adulteration of citronella oil came up for discussion, but was conveniently put off by referring the matter to the Low-Country Products Association which has appointed a committee to investigate and report. Much time has elapsed since then, and neither the Department of Agriculture nor the Low-Country Products Association has published any report as to the investigation made, or as to what action, if any, was taken. Those who are interested in the industry are in the meantime waiting anxiously for results. The L.C.P.A. should have taken a keener interest in this matter, since it is the less prosperous class that are involved and stand to lose all they have in the event of the downfall of the citronella industry. It is hoped that the investigation of the industry will be taken up immediately, ere it is ousted from the market by the Java product. It is not impossible that the fate of the plumbago industry may also overtake that of citronella in Ceylon."



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

#### "Pharmacist"

SIR,—Might I suggest through the columns of your widely-read journal that, in my opinion, the word "pharmacist" as a title would be much preferable to that of "pharmacian"? Its spelling is agreeable with physician, musician, electrician, etc. It also approximates closely to the French "pharmacien." To show that it is not a coined word, it was in use in the British Isles as far back as 1790—as is borne out by the following quotation from the preface of the "Edinburgh New Dispensatory," dated 1790, a copy of which is in my possession: "That a specimen of it had been distributed with a view of obtaining the opinion of other intelligent pharmacists respecting the intended alterations." I would specially recommend the above to the attention of those who are engaged in the drafting of the new Pharmacy Act for Northern Ireland with a view of having the word included as an alternative title.

Yours faithfully,  
Belfast. R. G. MCKINSTRY.

#### The Pharmaceutical Society's Opportunity

SIR,—The letter of the district coroner for Halifax (*C. & D.*, March 8, p. 344) affords the finest opportunity the Pharmaceutical Society's Council is likely ever to have to approach the Government in respect to the whole subject of dispensing by others than pharmacists and the question of stock mixtures. Note the attitude of the doctors when anything of equal importance happens in their profession.

Yours truly,  
OPPORTUNIST (10/3).

#### A Photographic Analogy

SIR,—When Mr. Simmons was addressing the North-East Lancashire Branch of the Pharmaceutical Society (*C. & D.*, March 15, p. 381), he likened the working of the Council to the development of a photographic plate in a dark room; it is a pity that he did not continue the simile, and state that the results were also alike—in the negative. He went on to advise pharmacists not to refuse to sell cocaine eye-drops separately from the first-aid cabinets, in case the Home Office broadened the basis of supply. And then the Council send us a circular advising us not to dispense scripts containing "dangerous" drugs unless we are certain of their authenticity by reason of familiarity with the doctor; in all these cases it is the pharmacist who is put in the wrong. Has he no rights at all? A live Society would insist on the rights of its members; if it is legally necessary to take out a qualification, there should be some return for it by safeguarding the qualified man's interests, at any rate up to a point where it would not interfere with the public weal.—Truly yours,

TOUJOURS TORT (17/3).

#### Profits on Advertised Proprietaries

SIR,—“W. H. B.” asks me to test my “theory.” I have, often, during the last thirty years, and my father had six shops going at one time. I cannot see that any business can have much “goodwill” attached to it if the proprietor is content to be a vendor of advertising articles only. My customers can, and very likely will, go to “W. H. B.” or my competitors for them next time. Can “W. H. B.” teach Boots business methods? They don't push the brands he mentions, but their own. My contention is that, if the 10,000 chemists sell one good unadvertised shaving stick for 300 days per annum, the big firms will feel a draught. My late assistant got a free trip to Paris at Messrs. Boots' expense as a prize for selling shaving sticks—their own, not the advertised

brands. Messrs. Cartwright, Ucal, and other packers for the trade do not do their big business with those who are content to sell advertised goods only. Is “W. H. B.” in the retail? I trust he will send along that £5 to the Benevolent Fund, or to

Yours, etc.,  
PROVED (18/3).

#### A Co-operator's Opinions

SIR,—Mr. Ogden, of the Co-operative Union (*C. & D.*, March 8, p. 347), as is usually the case with people who make strenuous attacks on traders, was decidedly unsafe on his facts, and had evidently not looked up his figures beforehand. I wonder what the wholesalers said on hearing that they get a larger profit than the retailer. As for a retailer's expenses, these take up 20 to 25 per cent. of his turnover, and there are few proprietaries which show a margin over this. If Mr. Ogden likes to price those goods which are not on the P.A.T.A. he will find that lines retailing at 1s. 3d. cost 1s. 6d. a dozen, truly an exorbitant profit for the vendor. There is only one way in which distributors can lower expenses to-day—by cutting down wages. I seem to remember that co-operative employees have recently been on strike for better pay. At the end Mr. Ogden said: “The co-operators could not open a chemist's shop with any prospect of success unless they agreed with the P.A.T.A. that one of the management committee should be a member of the Pharmaceutical Society.” It is news to me that the P.A.T.A. is the responsible body under the Pharmacy Acts.—Yours faithfully,

TRADER (9/3).

#### Subscribers' Symposium

For interchange of opinion among “C. & D.” readers and brief notes on business and practical topics.

##### An Ambiguous Prescription

A subscriber (25/2) sends us an original prescription for a liniment of aconite, belladonna and camphor, the directions for which read “3ss. once a day.” To prevent fatal results from such ambiguous directions the chemist was careful to expand it as follows: “One tablespoonful to be rubbed in once a day,” and to take the other precautions necessary in the case of such dangerous poisons.

##### Polypharmacy in the Transvaal

A subscriber (17/3) in the Transvaal sends us the following prescription for a baby. Considerations of space impel us to print its twelve ingredients in paragraph form:—

Ammon. carb. gr. j., sodii bic. gr. j., vin. ipec. m iss., liq. ammon. acet. m v., tr. camph. co. m j., syr. 3ss., bis. carb. gr. iij., bis. salicyl. gr. iij., sp. vin. Gall. m v., mucil. q.s., ext. glycyrrh. liq. m j., aq. anethi ad 3j. [Mitte] 3ij. 3j. t.d.s.

#### Dispensing Difficulties and Notes

##### A Thymol Lotion

SIR,—Can you suggest a satisfactory method of dispensing the following prescription? :—

Thymol.	...	...	...	...	5ij.
Liq. potassæ.	...	...	...	...	5j.
Glycerini	...	...	...	...	5iij.
Aq.	...	...	...	...	5vij.

Yours faithfully,

W. S. (13/2).

[We have tried this in several ways. The following procedure produces at least a usable and not unsightly preparation without materially altering the prescription: Rub down the finely-powdered thymol with the solution of potash, in which it is partially soluble, and introduce the glycerin gradually, continuing the trituration. Then add about two fluid drachms of tincture of quillaia and transfer to a bottle, finally adding the water in portions, shaking after each addition. Tincture of quillaia breaks up (emulsifies) the thymol so that it will diffuse readily when shaken.]

## Legal Queries

*K. (4/3).*—The skin preparation being recommended for ailments, and proprietary rights being claimed for it, requires to pay medicine-stamp duty.

*J. M. (15/3).*—The words "cough cure" could not be registered as a trade-mark in this country. We shall be glad of further details of the registration to which you refer.

*J. M. (15/3).*—The draft of label you send would not render the article to which it is affixed liable to medicine stamp duty, either with or without the words "Union Jack."

*S. R. H. (13/3).*—Both cantharides and chloroform are statutory poisons in Ireland, and this has been held to apply also to the sale of preparations containing the poisons.

*C. D. (23/2).*—Fellows' syrup can now be sold un-stamped by chemists under the exemption for "known, admitted and approved" remedies. The change is due to the altered labels now employed.

*T. H. (14/3).*—There are no pharmacy laws that require the lettering "poison" to be in raised or embossed letters on agricultural poisons. You will find the regulations summarised in *The Chemist and Druggist Diary*, 1924, p. 254.

*F. M. (13/3).*—You are not authorised to fill in the quantity of "dangerous" drug or other details required on a prescription which a doctor omits to do. This is the duty of the doctor and should he fail to carry out the Regulations the prescription cannot be dispensed by the chemist.

*J. A. J. (15/3).*—The factories which have to be provided with first-aid sets are those mentioned in the schedules to the Factory Act (C. & D., January 12, p. 59), the determining factors being that goods are made, altered, repaired, etc., for sale, and that mechanical power is employed.

*W. & Co. (18/2).*—SALE OF PURE SPIRIT.—The announcement regarding the sale by chemists of small quantities of rectified spirit was originally made in *THE CHEMIST AND DRUGGIST*, 1880, p. 324, and repeated in the annual Diaries. The concession is still in force, but through the intervention of the Retail Pharmacists' Union the quantity that can be sold is now five ounces instead of eight ounces.

*A. J. B. (10/3).*—An unqualified person can only carry on the business of a chemist and druggist under the conditions laid down in the Poisons and Pharmacy Act, 1908. This involves the formation of a limited company, and the registration with the Pharmaceutical Society of a qualified superintendent, who is the responsible person under the Pharmacy Acts. An unqualified person cannot carry on the business by employing a qualified assistant.

*A. M. S. (12/3).*—(1) Registration of trade-marks is effected at the Patent Office, Southampton Buildings, Chancery Lane, London, W.C. Registration is not compulsory, but is a way of protecting industrial property from piracy. You will find particulars of the method of registration in *The Chemist and Druggist Diary*, 1924. (2) If your customer trades in another name than her own it will be necessary, under the Registration of Business Names, to register the true name and the trading name.

*Nepenthe (10/3)* asks whether, upon the registration of a private limited company, it is necessary to furnish proof of the existence of actual capital to the amount specified in the memorandum of association. What is the least amount of capital with which a company may be formed? [Companies are registered with a "nominal" capital, and the actual existence of assets of corresponding value need not be proved. There is no limit to the amount of the capital. A company has been registered with a capital of £1. It is, however, often desirable to fix a rather larger amount as capital than that immediately required.]

*H. H. (24/2).*—(1) You cannot compel an employer to produce the letter regarding your conduct which you state he has received from a customer. If, however,

you can trace the writer and sue him for damages your employer could be subpoenaed to produce the document in court. Without seeing the latter we cannot express an opinion as to whether an action for libel based upon it would succeed. (2) An unqualified person cannot carry on the business of a chemist and druggist by employing a qualified chemist, but in the Poisons and Pharmacy Act provision is made for the carrying on of the business by a limited company employing a qualified superintendent.

*J. W. B. (13/2).* who had in previous years taken his optical stock at £150 for the purpose of his return for income tax, has recently had the stock valued by an optician, who puts the value at £30—that is, £120 less. "J. W. B." asks if he can take account of this depreciation when making his next return for income tax. [The rule is that any difference between the value of stock at the beginning and at the end of the year of account should be had regard to. If there is an increase, the amount of the increase should be added to the trading profits assessable to tax; if there is a decrease, as here, the amount of the decrease should be deducted from the profits returned. It would be well in this case to have the optical stock valued by a trained valuer if question with the income-tax authorities is to be avoided. Any fee paid to the valuer is allowable as a trade expense.]

*M. W. (10/3).* who is manager of a branch of a co-operative society, says that he recently applied to the magistrates for a licence to sell wines at the branch, but was refused. He now asks if such societies as his really require a licence, and whether they could not, as in the case of clubs, sell or supply wine to their members without licence. [If the position of the society were identical with that of a members' club, of course the same law would apply to it, but this is rarely the case. In a club the liquor is bought for the whole of the members, and it becomes, on its purchase by the club, their joint property. From this it follows that when subsequently the liquor is distributed among the members the distribution is not a sale, but what is known in law as a "supplying," even if the member has to pay more for it than the cost price. Therefore as the law provides only that sales shall be licensed, the High Court has said that supply in a members' club need not be licensed. Of course, clubs which supply alcoholic liquor to their members now require to be registered, but that is a formal matter.]

*H. R. (29/2).*—A ruling of the High Court given in a case under the Profiteering Act was that dispensing is a sale *plus* something else which can be defined probably as skill; therefore sales under the Dangerous Drugs Acts include dispensing without further definition. On the general position as to the supply of pulv. ipecac. co., it appears quite clear from Regulation 17, which states: "These regulations shall not apply in respect of the preparations named in Schedule II to these regulations nor to any of the drugs when denatured in a manner approved by the Secretary of State." Thus pulv. ipecac. co. may be sold or dispensed mixed or not, since it is an exempted preparation; at least that is common sense, and we believe would be the legal interpretation. In regard to the Home Office ruling that pulv. ipecac. co. is not exempt when mixed with another medicament, we think this absurd ruling arose from a misunderstanding of the question by persons without any medical knowledge. We do not think the Home Office would venture to prosecute a chemist, and if they did so it would be the duty of the Pharmaceutical Society to fight the question in the Law Courts. However, we advise chemists to accept the Home Office ruling until such time as reasonable views can be placed before the Government.

As a subscriber to your journal for over thirty-five years, I can assure you that much of the pleasure and profit of my drug life was derived from the C. & D. and its publications. A pleasant memory was my meeting your late editor, Mr. McEwan, and an admiration for your "scoop" in anticipating the publication by our American papers of the criticism of the last [United States] Pharmacopœia.—*R. A. R. (11/2).*

## Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

**T. S. (10/3).**—A chemist's business should be regarded as an investment for a buyer *plus* the labour needed to secure the return of his investment; consequently the net profit to him is the surplus apart from stock, fixtures, lease (if any) and his own labour value. In the hypothetical case you give it would be £50 per annum.

**T. T. D. (20/2).**—**MATERIA MEDICA TABLES.**—We do not publish a classification of *materia medica*, but tabular forms are given in Squire's "Companion" and Humphreys' "Materia Medica" (Churchill, 6s. 6d.). The latter has not, we believe, been reprinted since the B.P. 1914 was issued.

**A. J. (8/3).**—**WINDOW STEAMING PREVENTIVE.**—The most effectual simple means for this purpose is the use of soap. The soap should be reduced to thin shavings and covered with sufficient boiling water to produce a soft paste when cold.

**F. M. (10/3).**—**RECIPROCITY OF PHARMACEUTICAL QUALIFICATIONS.**—If you emigrate to the United States the training which you obtain for the Pharmaceutical examinations in this country will be useful, but the National examinations will have to be passed in the United States. The British qualification is accepted in most of the British Possessions, according to whether reciprocal arrangements have been made for the acceptance of the qualification or the pharmacy laws of the country have provided for the acceptance.

**Dispenser (11/3).**—**POULTRY TONIC.**—The tonics given to birds for conditioning them for show purposes contain small amounts of iron, occasionally combined with a vegetable bitter (such as chiretta) and capsicum. The model of the liquid preparations, *Douglass mixture*, is made as follows:—

Iron sulphate	...	...	1 oz.
Dilute sulphuric acid	...	...	1 dr.
Water	...	...	2 pints

Add a teaspoonful of this solution to each quart of drinking water.

**O. J. S. (12/3).**—**BAY RUM AND CANTHARIDES HAIR-WASH.**—The following is from "Pharmaceutical Formulas":—

Glycerin	...	...	3xvj.
Tincture of cantharides	...	...	
Tincture of quillaia	aa.	...	3vij.
Bay rum	...	...	Oiv.
Rose water	...	...	aa. 3vij.

Mix and filter.

**A. F. G. (10/3).**—**REMUNERATION OF APPRENTICES.**—The present-day practice is to pay the apprentice for his services, these being valued at about 10s. a week for the first year, with an increase of 5s. a week for each year of apprenticeship. The payment of premiums by apprentices is now rare, but if paid, the money is often returned in the form of wages.

**H. W. (Johannesburg) (5/2).**—(1) The back numbers of the *C. & D.*, 1900, are out-of-print, but copies could probably be obtained through an advertisement in the Coloured Supplement. (2) **ANT-POISONS.**—See reply to "M. A." As solid poisons the following are employed: (a) alum; (b) caustic soda mixed with kieselguhr; (c) sodium fluoride; (d) quicklime.

**L. G. (Kenya) (23/8).**—**MANUFACTURE OF SPIRIT FROM SUGAR.**—The information regarding this is given in books dealing with the cultivation of the sugar-cane. Newlands' "Sugar" (Spon), for instance, contains a chapter dealing with the manufacture of rum spirit, and Deer's "Sugar" (Roger) also has a chapter on this subject. The fermenting vessels and stills are obtainable from chemical plant makers. (See Buyers' Guide of *The Chemist and Druggist Diary*, 1924.)

**M. A. (Johannesburg) (6/2).**—(1) **ANT POISON.**—The following are liquid forms: (a) thin syrup containing arsenic 60 grs. to the pint; (b) carbon bisulphide; (c) paraffin containing naphthalene 4 oz. to the gallon; (d) carbolic acid 3 oz., water 1 gal.; (e) chloropicrin. (2) **LIQUID FLOOR POLISH.**—

Crude terebene	...	...	20 parts
Camphor oil	...	...	5 parts
Linseed oil	...	...	70 parts
Paraffin oil	...	...	5 parts

(3) **LIQUID DOG SOAP.**—

Coco-nut oil soap	...	...	1 oz.
Distilled water	...	...	4 oz.

Dissolve with heat and add

Carbolic acid	...	...	20 drops
Eucalyptus oil	...	...	5 drops

Allow to stand and filter.

**E. H. (22/2).**—**ONION JUICE** can be prepared by pressing the cut-up bulbs in a tincture press. The odour is due to allyl sulphide, which is also communicated to the juice by the cut-up bulbs in a tincture press. The odour is altered without decomposing the allyl sulphide upon which the medicinal properties depend.

**J. S. T. (3/3).**—(1) **SYRUP OF FOXES' LUNGS.**—Originally made from foxes' lungs combined with demulcents and aromatics, the modern representative has lost its animal origin. The custom varies in different parts of Great Britain as to what to supply when "foxes' lungs" is asked for. Correspondents have told us that syr. tolu and syr. scillæ are given, but in Norfolk a liquorice syrup further medicated with vin. ipecac. is supplied. The recipe as given in "Pharmaceutical Formulas" is as follows:—

Liquorice	...	...	...	5iiss.
Water	...	...	...	Oiiiss.

Dissolve and add

Sugar	...	...	lb. viii.
-------	-----	-----	-----------

Dissolve by heating, strain through flannel and add  
Ipecacuanha wine

Ipecacuanha wine	...	...	3iv.
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(2) **INFANTS' CORDIAL.**—The following is a recipe for the kind you require:—

Ol. anthem.	...	...	...	mij.
Ol. carui.	...	...	...	miv.
Ol. coriand.	...	...	...	miv.
Ol. limonis.	...	...	...	mij.
Ol. menth. pip.	...	...	...	mv.
Spt. rectificat.	...	...	...	3iss.
Glycerini.	...	...	...	3ij.
Aq. fervid.	...	...	ad	3xvj.

Dissolve the oils in the spirit and shake up with the glycerin and 12 oz. of lukewarm water. Allow to stand for a day and filter through a wet filter sprinkled with Fullers' earth; wash the filter with cold water to make the product measure 16 oz.

(3) **WORM SYRUP.**—The following formula is free of santonin:—

Ext. spigeliae liq.				
Ext. sennæ leg. liq.				
Ext. chenopodiæ liq.	...	aa.	mXL.	
Ol. anisi.	...	...	mj.	
Syrupum	...	...	ad	3j.

Misce.

Dose: Under one year, half a teaspoonful; from one to three years, one teaspoonful; from three to six years, two teaspoonfuls; above that age, three teaspoonfuls. To be given every other morning, fasting.

**K. & S. (16/2).**—**BOILER INCRUSTATION PREVENTIVE.**—The substances recommended for preventing incrustation in boilers are numerous. These generally consist of vegetable matter containing tannin, such as cutch, oak-bark, or spent tan, suspended in water with about 10 per cent. of caustic soda. The simple addition of tribasic sodium phosphate answers in some cases. It often requires an investigation to be carried out as to the ingredient in the water supply that is causing the boiler deposit, and it is now recognised that it is better economy to soften the water supply before feeding into the boiler so as to prevent incrustation, than to endeavour to prevent it in the boiler.

*A. J. A.* (8/3).—**SUGARLESS MARMALADE.**—The basis of this is a jelly made with gelatin instead of sugar, the strength being about  $\frac{1}{2}$  oz. of gelatin to a pint of liquid, which in this case would be the orange juice, pulp and grated peel. The sweetening is managed by the addition of saccharin, which, however, should be added cautiously as an excess is objectionable to the taste.

*J. S.* (1/3).—The distillation of lavender and rose oils is dealt with in Parry's "Chemistry of Essential Oils," vol. I, in the monographs on lavender and rose. We are unable to refer you to a book dealing solely with the distillation of these essential oils.

*W. H. C.* (11/3).—**COLOURING BATH SALTS.**—The process consists of spraying a spirituous solution of the colour upon the sodium carbonate (in the form of fine crystals). The colours employed are the same as those enumerated for use in smelling salts in the *C. & D.*, February 23, p. 288, these being chosen on account of their power to resist the action of alkali.

*Nemo* (4/1).—To PROMOTE THE SHEDDING OF A HORSE'S COAT, the animal is sponged with a solution of ammonium carbonate (about 4 oz. to half a pintful of water), but we doubt whether the stimulating effect has much influence on the rate of shedding the coat. The suggestion you make to use a cantharides preparation embodies a similar idea of stimulating the skin to increased activity.

*A. M.* (29/2).—There does not appear to be an official formula for ung. quiniae. The practice seems to be to dissolve the quinine sulphate by the aid of a small amount of sulphuric acid (1 in 3) and mix the quinine with lard in the proportion of about 1 in 8.

*D. O. M.* (27/2).—We have no formula for ginger wine in which green ginger is employed.

*Jack Tar* (Victoria) (20/1).—(1) **BARBADOES TAR** is a natural product obtained in the island of Barbadoes, but often coal-tar which resembles it, is used as a substitute. (2) **SPIRITS OF TAR.**—In Great Britain this term is used as synonymous of rectified oil of tar, which has an average sp. gr. of 0.880. The spirit is distilled in this country from wood tar of Northern European origin. (3) **CREOSOTAL** or creosote carbonate is generally administered in capsule form, but being soluble in alcohol, ether, ethereal oils and fatty oils it could be emulsified after solution in almond oil.

*M. & L.* (5/3).—**DYEING CELLULOID BLACK.**—The best method appears to be first to soak the celluloid in weak solution of caustic soda, and then immerse in a solution of silver nitrate, and expose to sunlight. This may have to be repeated until a satisfactory black is obtained.

*P. A.* (19/3).—**MILK OF CUCUMBER AND GLYCERIN.**—

Cucumber pomade	...	...	5iiss.
Powdered white Castile soap	...	5v.	
Powdered borax	...	9ij.	
Otto of rose	...	...	xxx.
Oil of lemongrass	...	...	mv.
Rectified spirit	...	...	5iv.
Glycerin	...	...	5vij.
Water	...	...	3xxv.

Mix the first three ingredients in a mortar, dissolve the essential oils in the spirit and add to the glycerin and water previously mixed. Now emulsify the fatty mixture with the solution by adding it gradually and with constant stirring.

*D. C. J.* (15/3).—We are always pleased to supply copies of "known, admitted and approved" remedies from the recognised works of reference. The reference number and name of the article and the standard work should be stated and a stamped envelope enclosed with the request.

*A. M.* (14/3).—**WHITE DRESSING FOR CANVAS SHOES.**—

French chalk			
Flake white			
Zinc oxide	...	...	of each 2 oz.
Gum acacia	...	...	1/2 oz.
Carbofic acid	...	...	1/2 oz.
Water	...	...	a sufficiency

Mix to form a thick cream.

*J. L. T.* (Madras) (21/2).—The mixture does not contain sufficient preservative. The use of aq. chlorof. would probably prevent the fungoid growth developing.

*H. S. S.* (11/3).—**METOL DERMATITIS** being due to the presence of dimethyl-paraphenylenediamine, the treatment should be on the same lines as fur dermatitis arising from a similar chemical. Skin creams with a casein basis are particularly useful, and lead lotion used at night is good. As a preventive it is recommended before using the developer to soak the hands in dilute acetic acid or solution of sodium bisulphite.

*N. D. S.* (12/3).—**SARSAPARILLA SYRUP.**—You do not say in what respect your formula for this is considered defective. It could be altered by using dec. sarsap. conc. in place of dec. sarsap. co. conc. and adding separately ol. sassafras (dissolved in spirit) with succ. solazzi to replace the rad. glycyrrh. of the compound decoction. The predominating flavour required is that of sassafras with the sweetness of liquorice. If, however, you require to retain the guaiacum and mezereon of the compound decoction it may be necessary to heighten the flavour by small additions of ol. sassafras and liquorice.

*J. P.* (14/3).—**CORN SALVES** depend for their activity upon salicylic acid, the proportion of which varies from 1 in 4 to 1 in 10. The following are representative formulas:—

I		II			
Ac. salicyl.	...	5i.	Ac. salicyl.	...	5i.
Sebi. præp.	...	5i.	Adipis lanæ	...	5iiss.
Adipis	...	5ij.	Sulph. sub.	...	3ss.
After applying for four nights, bathe the foot and pick out the corn.			Paraff. moll.	ad	3x.
			Misce.		

*J. F.* (14/3).—The ingredients of the cycle-enamel remover convey nothing to us, and it is not improbable that the mystery is intentional. Caustic alkalies would probably affect the purpose in view.

*J. T. C.* (12/3).—**GAS-MANTLE PRESERVATIVE.**—The purpose of the formula for this, given in "Pharmaceutical Formulas," is to furnish additional strength to the fragile mantle and to increase the illuminating power. The liquid should be applied before burning off the mantle.

*J. G.* (25/2).—(1) **CLEANING IVORY.**—The usual method of cleaning ivory that has become discoloured is with creta præparata moistened with sp. ammon co., but ivory is best bleached by immersion in warm peroxide of hydrogen solution made alkaline with ammonia. Grease should have been first removed with benzene. (2) **HAIR-FIXING CREAM.**—See *C. & D.*, February 9, p. 216.

## Retrospect of Fifty Years Ago

Reprinted from  
"The Chemist and Druggist," March 14, 1874

### Fastidious Dispensing

The discussion which followed the reading of Mr. W. Murton-Holmes's paper on iodide of iron, at the evening meeting of the Pharmaceutical Society on February 4, evoked some very extraordinary expressions of opinion respecting the liberty of a dispenser to exercise his own judgment in dealing with a physician's prescription. Mr. Holmes had found that in preparing a mixture containing iodide of potassium, iodide of iron, and syrup, the appearance of the solution differed very considerably, according to the order in which the ingredients were mixed. If the potassium salt was added to the iodide of iron, a precipitate was formed, but if the syrup was intermediately introduced, no such decomposition ensued, a perfectly clear mixture being obtained. A more satisfactory result, Mr. Holmes had observed, was effected by first neutralising the iodide of potassium with a little citric acid. Upon this suggestion a controversy arose as to the principle involved in any departure by the dispenser from the strict letter of a prescription, some of the speakers—amongst whom we were surprised to find the President—maintaining that it is a pharmacist's bounden duty to be not only blind to the faults of a prescriber, but even, as in this case, to introduce an error rather than rely upon his own skill and judgment in obviating it.



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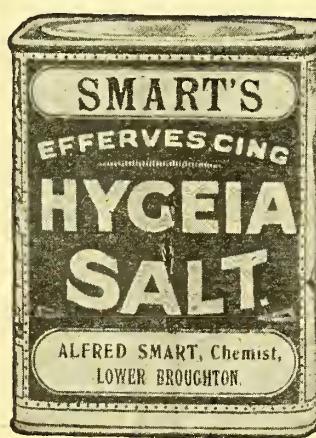
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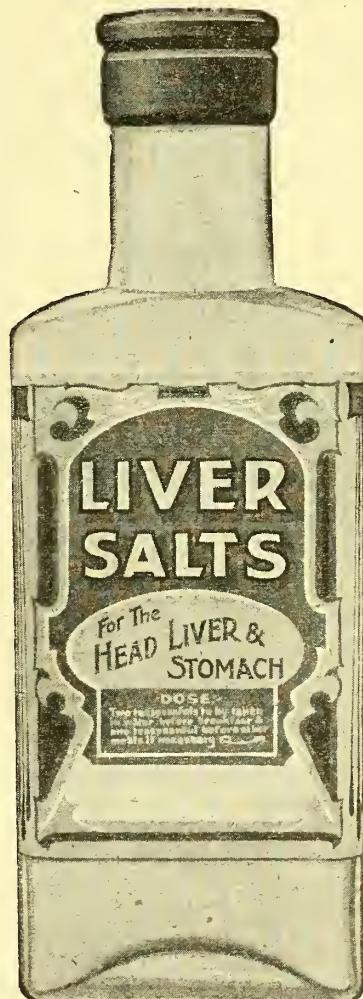


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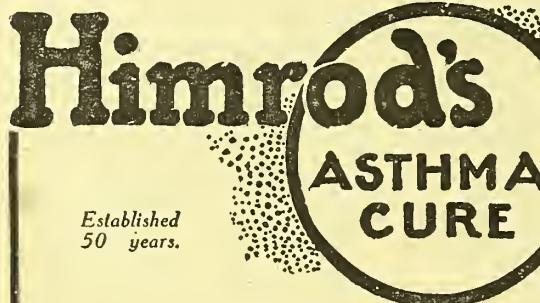
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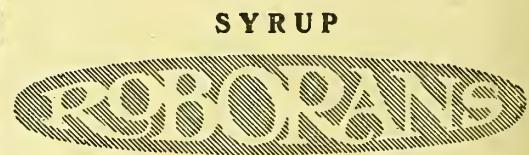
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**EINLADUNG.**—J. W. LIGHTBOWN & SONS, Accrington, (England), Fabricanten der weltberühmten "GRIPS" "FIRST-AID PASTILLES (GRIPS) ERSTE-HILFE PASTILLEN) laden alle Besucher der BRITISCHEN REICHSAUSSTELLUNG ein, STAND Nr. A.58a in den Chemischen Halle des Industriepalastes zu besichtigen. Alle Anfragen werden prompt erledigt.

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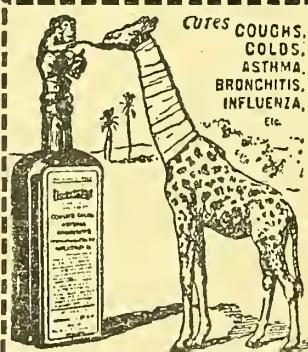
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ACTS LINC MAGIC

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10½ d. size	-	-	-	8/6 per doz. net.
1/3 "	-	-	-	12/- "
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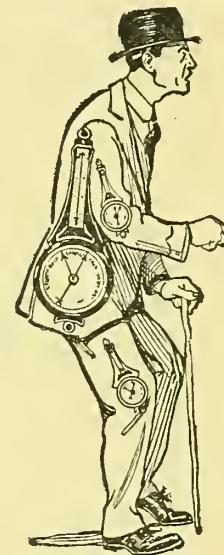
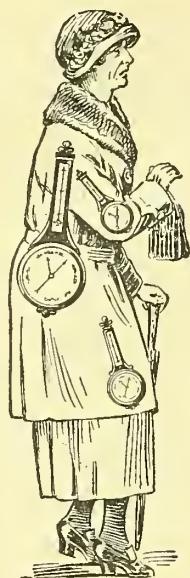
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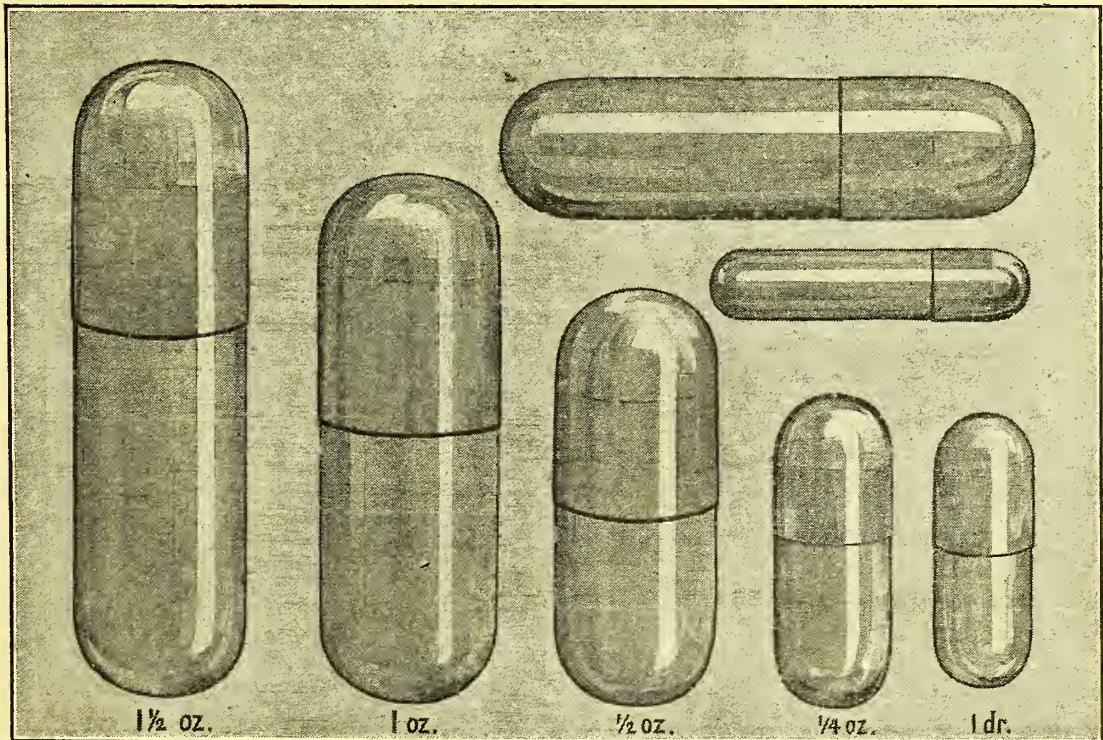
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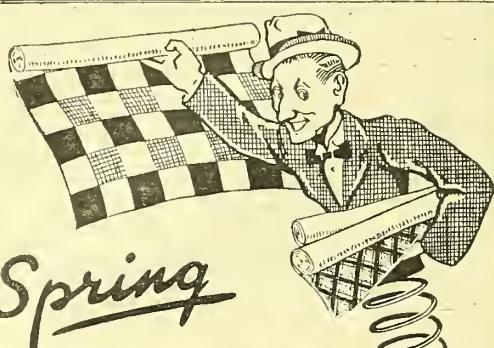
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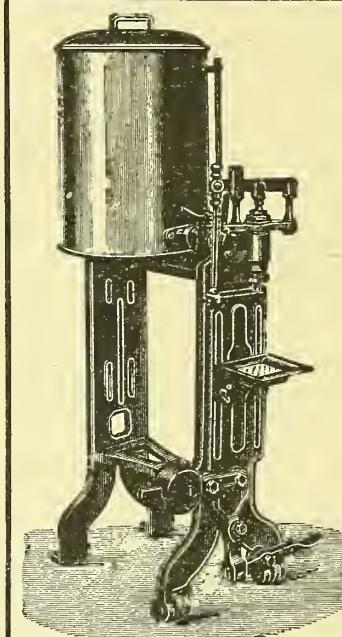
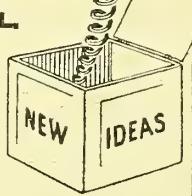
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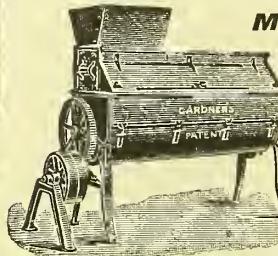
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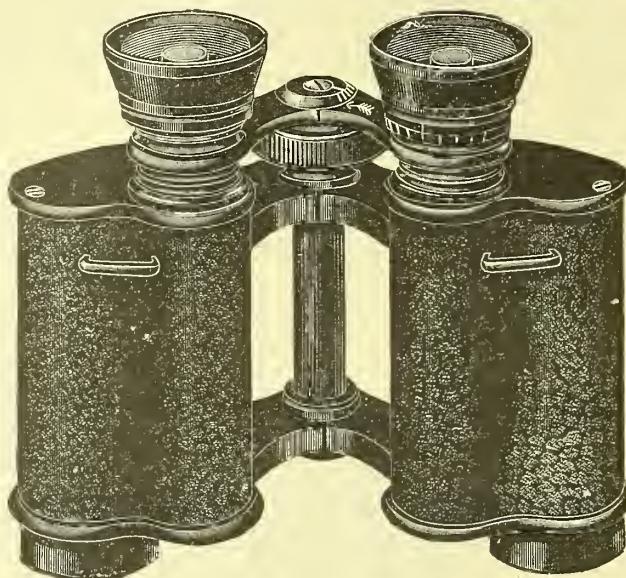
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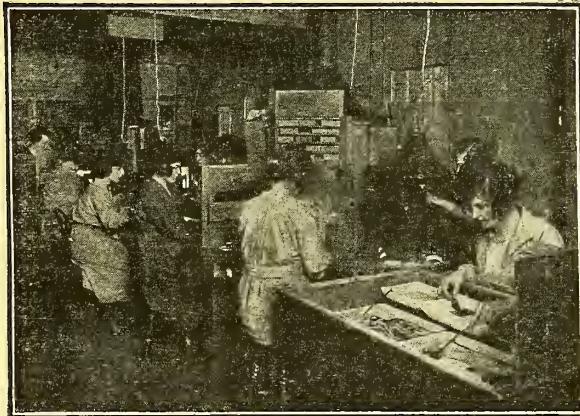
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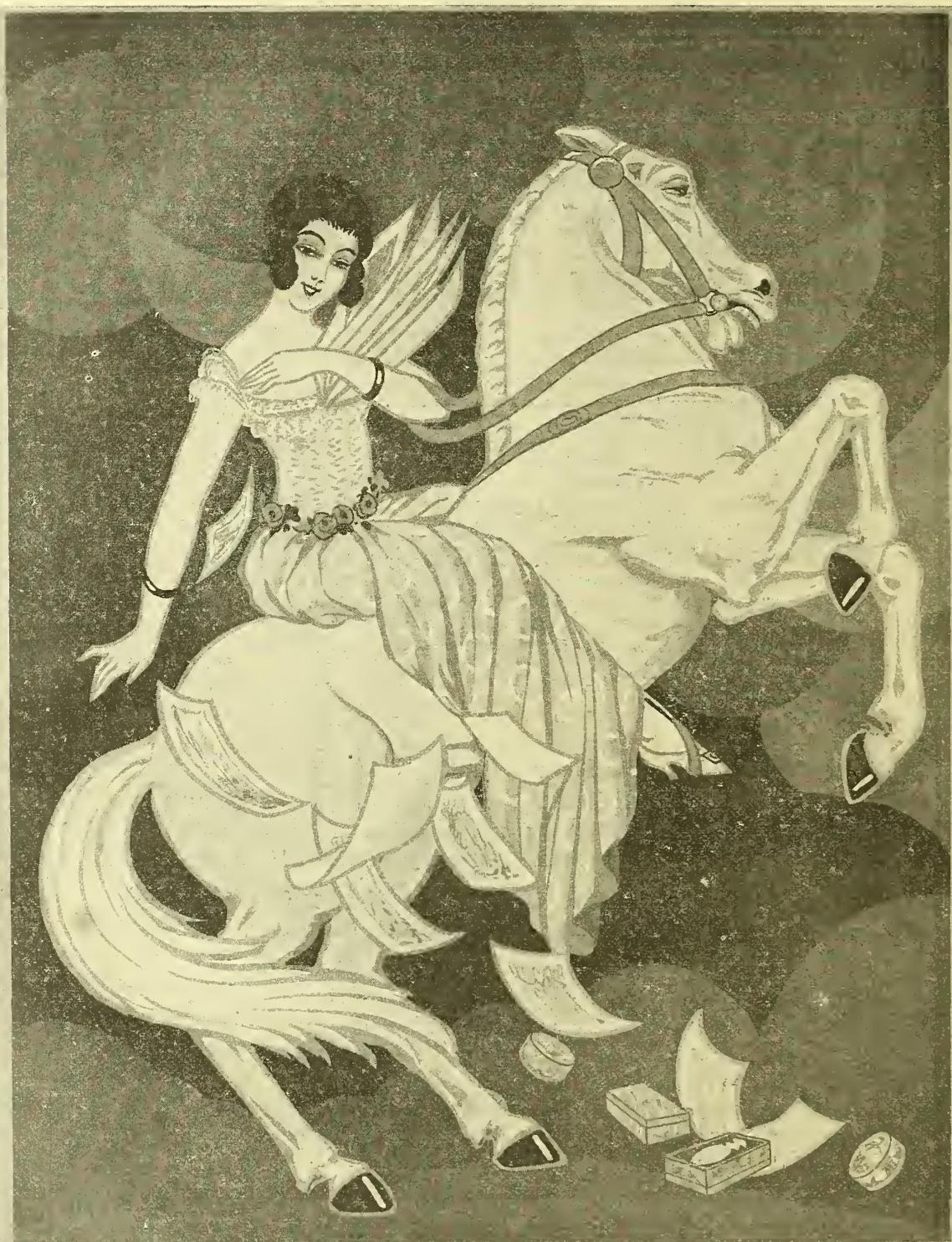
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MARCH 22, 1924

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All valuations have the personal attention of F. J. Brett, M.P.S.  
TRANSFER AGENTS AND VALUERS.

73 LAUREL ROAD, LEICESTER Telephone : 1934. £3,000 returns, average for 3 years; Midlands; unopposed Country Retail and Grocery; vendor retiring, will live near and assist Buyer; plenty of scope for increase; good house and premises. Price for business, £2,250.

£14,000 returns; Lancashire; Wholesale Drug Trade, Medical and other Lozenge Manufacturer; good Patent Proprietaries, Packed Goods, Essences, Flavourings, and General Trade; well-equipped and up-to-date Plant; well-established and capable of unlimited extension; goodwill, formula, plant, stock, etc., about £5,500; applicants must enclose bankers' references.

£955 returns; Bristol; easily worked Retail; capable of great increase; 50 years same family; illness cause of sale. Price £700.

£1,200 returns; Derbyshire; light, good working-class cash trade; no N.H.I. Vendor's health not allowing this; good opening; nice house and garden, electric light. Price £700.

### BUSINESSES WANTED.

We have cash buyers for all sizes and classes of businesses.

## JOHN BRIERLEY

Valuer, Transfer Agent & Expert Stocktaker  
135 Queen St., Newton Heath, Manchester

LIVERPOOL (near).—Returns £45 weekly, price £1,750.

SUNDERLAND (near).—Returns £1,050 yearly, accept valuation, £400

URGENTLY REQUIRED, Sound Concerns, £300 to £3,000.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

## SALE BY AUCTION.

G. R.

By direction of the George Cohen and Armstrong Disposal Corporation.

IMPORTANT  
SALE BY AUCTION

HOUSEHOLD AND OFFICE FURNITURE,  
MEDICAL STORES AND EQUIPMENT,  
will be held in the  
CENTRAL INSTITUTE, H.M. FACTORY,  
GRETNNA,  
on

WEDNESDAY, APRIL 2, 1924,  
commencing at 11.15 a.m.,  
comprising:—

FURNITURE.—17 Oak Wardrobes, two sets of two and four Jacobean Dining Chairs, 340 W.B. Chairs, 200 Chairs, various, 200 Bedsteads, 3,500 sq. yds. Brown Lino, 150 Forms, 100 Chests of Drawers and Dressing Chests, 100 Tables, various, 35 small Oak Tables, one Grand and five Upright Pianos by Collard, Chappell, Erard, Payne, etc., Ratner Safe, 5 ft. x 2 ft. 7 in. x 2 ft. 8 in., Cupboards, Washstands, Lockers, Desks, Bookcases, Writing Tables, Chesterfields and Settees, Card Cabinets, seven rolls Coconut Matting, 40 Rugs and Mats, large quantity of Blue Band and other China, Cutlery, Kitchen Utensils, six Ax. Carpets, etc.

MEDICAL LABORATORY AND SURGICAL STORES, ETC.—8,000 Bottles, stoppered and unstoppered (wide and narrow mouth); 1,600 Thermometers, various; 14,000 Rubber Corks, various; 1,500 Glass Flasks, various; 3,000 Glass Tubes, various; large quantities Splints, Bandages, Forceps, Spatulas, Probes, Syringes, Tourniquets, Douches, Catgut, Ligatures, Sprays, Masks, Scissors, Speculas, Gags, etc.; large quantities of Castor Oil, Liniments, Ointments, Camphorated Oil, Almond Oil, Bandages, Splints and Stretchers (contained in Hospital Cupboard), etc.

GENERAL STORES.—Quantity of Pipes, Bends, etc. On view March 29 and 31, April 1, and morning of Sale, by production of Catalogue, which may be obtained from the Auctioneers,

ROBERTSON &amp; FOOTE,

104 WEST GEORGE STREET, GLASGOW.  
Telephone: 3736 Douglas.

NOTE.—As the exposures will be held in the Central Institute, buyers are requested to inspect the various lots before the Sale. The Central Institute is about 10 minutes' walk from Gretna Green Station (L.M. & S. Rly.). Motors run regularly to Gretna from Carlisle.

## BUSINESSES FOR DISPOSAL.

A SHTON-UNDER-LYNE.—Old-established Chemist's Business with full Wine Licence attached; splendid position; heavily stocked, price £900; practically valuation. Also several sound concerns, Yorkshire and Cheshire, with good living accommodation, lease, etc., returning £20 to £45 weekly; low price for quick sale. Brierley, Chemists' Valuer, 135 Queen Street, Newton Heath, Manchester.

B LACKPOOL.—Unique opportunity occurs to acquire a really genuine up-to-date Chemist's Business, doing large profitable turnover; splendid stand; heavily stocked; handsomely fitted; thorough investigation courted; any term of lease granted; price £2,500. (Principals and cash buyers only entertained.) Brierley, Chemists' Valuer, 135 Queen Street, Newton Heath, Manchester.

B RIGHTON.—Drug Stores; up to date; chance of lifetime for Chemist; profits, £500 year under unqualified (books kept); expenses little; double-fronted small shop; medium-class trade; sitting or dental room, 2 large dry cellars, yard, etc., electric light; best position in Brighton for N.H.L; rent, £52, including all rates; long lease; price £1,200; Kodak Agency (last summer over 1,000 D. and P.); good house accommodation if required. Full particulars, stamped envelope. Genuine. 159/20, Office of this Paper.

L ONDON.—Good-class district near West-End; pre-war rent; lease 21 years; heavy stock; low expenses; accountant's figures for 1923 show turnover £3,783; gross profit 43%, net profit £1,034; price £3,102; banker's references required and given; no living accommodation. 157/29, Office of this Paper.

L ONDON, S.E.—An old-established Chemist Business; present hands 20 years (retiring); old age; unopposed; large area buildings being erected around; returns at present £700; neglected; large house, 9 rooms; new lease can be had, £70; price £550; can be made by letting. Apply, "Chemist," 9 The Village, Old Charlton, S.E.

M ANCHESTER.—Old-established (1832) Business, within City boundary (Hopes, late Bowker & Methuen, 332 Deansgate); takings average £2,000 p.a., under management; N.H.L about 700 per month; good Proprietaries; 51 years' lease at £70 p.a.; Vendor retiring; good terms for quick sale. Apply, Mrs. E. M. Hope, 872 Ashton New Road, Clayton, Manchester.

M ONMOUTHSHIRE.—Chemist's, with excellent Veterinary and Optical connection, doing over £50 weekly; shop and five rooms; rent and rates £84; lease to go seven years, and renewable; clean stock; man with good veterinary knowledge and good prescriber can do well here, where profits are excellent; price about £1,200, according to stock. 157/30, Office of this Paper.

N ORTH CHINA (healthy Seaport Town).—Old-established Chemist's business for disposal; owner retiring; returns about £5,000 per annum; net profits a third; large and convenient premises, in fine position; price £1,000, goodwill and valuation of stock and fixtures, in all about £3,500 to £4,000. Apply, Berdoe & Fish, Chemists' Valuers, 41 Argyle Square, King's Cross, W.C.1.

N ORTH WALES INDUSTRIAL DISTRICT.—Unopposed Cash Business, with Wine Licence, etc.; £20 weekly, without N.H.L, and increasing; small living accommodation; can be let off; price £700, or near cash offer. Further particulars on application. 158/13, Office of this Paper.

S OUTHPOR.—Good middle-class Family Business for disposal, taking £20 weekly; Kodak Agency, N.H.L, etc.; large house; low rent; two rooms sub-let. Full particulars to genuine buyers only. 158/18, Office of this Paper.

S OUTH YORKS.—Small Pharmacy; Cash Retail; Photog. and N.H.L; house attached; rent 18s. (rates included); price £350 or near offer. Also near Wakefield, small Pharmacy, lock-up; 7s. 6d. weekly; turnover about £750; only open 16 months in new district which is being developed; smart man could do well; price about £300. Chas. C. Marsden, Chemists' Valuer, 44 Sholebrooke View, Leeds.

W EST COAST, SCOTLAND.—Holiday resort. Chemist's Business for Sale, situated on the front in growing part of the town; mahogany fittings; good stock; Private and Insurance Dispensing; Kodak Agency; large Photographic trade; offers wanted; particulars to principals only. 157/17, Office of this Paper.

W EST RIDING.—Modern Pharmacy, middle-class suburb; W returns, over £1,300 last year; very profitable; house attached; price £650; property, £1,000; mortgage can be arranged for £750; also smart Pharmacy in good-class, healthy suburb; splendid chance for an up-to-date man; Kodak Agency; returns, £1,200; could easily be increased 50 per cent.; house attached; lease; price £800. Marsden, 44, Sholebrooke View, Leeds.

A NEGLECTED Photographic Chemist Business for Sale; lock-up shop with three store rooms and yard; favourable long lease; good scope for increase; good reason for disposal; would take any reasonable offer for quick sale. Reply in first instance, by letter only, to Mr. Thomas, 386 Clapham Road, S.W.

A N opportunity seldom offered.—High-class Herbal Business; good position, in busy Yorkshire town; convincing books; negotiations only with genuine buyer; well-fitted up and stocked; good reasons for selling. For particulars apply 158/14, Office of this Paper.

D RUG Stores for Sale; Stock and Fixtures at valuation; will mortgage property or rent at £1 a week; good opening for qualified man; good living accommodation. Apply 65 Rochdale Road, Bury.

F OR Sale, in a good working-class district, main road, Branch Shop; Wine Licence. Kodak's; no opposition within two mile radius; population 3,000-4,000; takings £800 yearly; qualified proprietor on spot could easily increase turnover double or treble; nearest offer £250 secures. 156/3, Office of this Paper.

O LD-ESTABLISHED Retail in good market town near London for immediate sale; takings recently small owing to lack of capital; business capable of large extension if properly worked; valuation, stock and fixtures, and lease 12 years; low rent; cash transaction. 159/32, Office of this Paper.

S URGICAL Business for Sale in large industrial centre North of England; very suitable for Wholesale Drug House or Chemist doing business in this area; full particulars given. Apply 41/318, Office of this Paper.

## BUSINESSES WANTED.

D ESIRER to purchase for cash a genuine Business returning about £60 per week, preferably in a good provincial town, Midlands, W. or S.W. of England, or on coast; wholesale and bankers' references exchanged. Preliminary particulars, in strict confidence, to "Pharmos," 143/16, Office of this Paper.

S OUTHERN or South-West Counties preferred.—Wanted, genuine Light Cash Retail Business; small modern house attached; favourable lease necessary; in good working or middle-class district; cash ready; must bear investigation, and show net profit £425 per annum; alternatively would pay £10 for information (acted upon) suitable premises and locality. Replies to 154/38, Office of this Paper.

A PHARMACIST, with capital available, desires to get into touch with another Pharmacist wishing to dispose of his business; must be first-rate, or offer excellent opportunities; turnover about £2,500; banker's reference given. Replies, in confidence, to "H. C. C." (please forward), c/o Messrs. Alie & Hanburys, Ltd., Bethnal Green, E.2.

P HARMACEUTICAL Chemist wishes to purchase good-class Business; premises also will be entertained. 159/31, Office of this Paper.

## AGENCIES.

**A** WELL-ESTABLISHED firm of Toilet Sundriesmen desire Agency for French or English high-class goods, including Hair, Tooth and Toilet Brushes, Combs, etc. Full particulars to North of England Advertising Agency, 148 Westgate Road, Newcastle.

**C**HEMISTS, Druggists, Hairdressers.—Travellers visiting these stores wanted everywhere on commission for excellent side lines; no samples; liberal commission allowed; big turnover possible. Write 138/26, Office of this Paper.

**M**ANUFACTURERS desire get in touch with good Agent or Firm able to introduce good business in Adrenalin, Organo-therapeutic and Allied Products; exclusive arrangement considered. Only those having wide sales experience with Medical Profession should apply. Fullest details, in confidence, to "Pharmaceuticals," c/o Mann Brothers, 40 Trinity Square, E.C.3.

**R**EPRESENTATION WANTED.—German firm of the Chemical line, founded 1906, which produces pure Scientific Preparations only, and which had a Representative in England until 1914, is looking out for a Solvent Representation which only represents pure Scientific Preparations of the Chemical and Pharmaceutical line, manufactured by first-class firms. Offers, with references, to be sent to M.V. 1618, c/o Rudolf Mosse, Munich.

**T**ONIC HAIR CREAM.—Live Salesmen required, with good connection, to introduce a new Hairdressing and other sound selling lines; excellent prospects for the right men; several territories are available; commission basis. Apply, at once, Scalpo, Ltd., Hewitson Road, Liverpool.

## PARTNERSHIP.

**P**ARTNERSHIP—Optical.—Partnership sought by M.P.S., F.B.O.A., in West-End Pharmacy with view of starting Optical Department and help in Pharmacy if necessary; highest references and long experience. Reply in first instance to 41/326, Office of this Paper.

## FOR SALE.

**T**WO doz. Chapman's Cattle Oils, all sizes; 2 doz. case of Smith's Foot-rot Preventive (1s. 4d. tins); 2 doz. 3s. 6d. Bagshaw's Foot-rot Liq.; 2 doz. 3s. 6d. Helliar's Fly Powder; 1 doz. 2s. 9d. Cataline; 3 doz. 1s. 8d. Cuff's Farmer's Friend; 2 doz. 1s. Castrique (for dogs). Offers whole or part. Mason, Titchfield, Fareham.

## SITUATIONS OPEN.

## [HOME.]

## RETAIL.

**A**CCRINGTON.—J. S. Snell, Chemist, requires smart Junior or Improver on March 31; age about 20; either sex; half fare paid to personal applicants, and all applications per post acknowledged; photos returned.

**B**RIGHTON.—Qualified lady Assistant for Dispensing and Quick Retail. Send full particulars, with salary required, to Ashton & Co., 46 Dyke Road, Brighton.

**B**URNLEY.—Smart Assistant required; must be abstainer, accurate Dispenser, good Window-dresser, and have some Photographic knowledge; highest references essential. Apply by letter only, stating age, height, salary required (outdoors), and previous experience, to Tomlinson, Chemist, 63, Oxford Road, Burnley.

**C**ARDIFF.—Unqualified Assistant required. State age, height, experience, references, and salary required (outdoors). Ducks', Ltd., Retail and Shipping Chemists, Bute Docks.

**C**HESHIRE.—Lady Assistant, qualified, wanted at once; Counter, N.H.I.; quick trade; able to take charge. Please state full particulars as to age, salary required, experience, and photo (if possible), by letter only, to Law, 45 Market Street, Birkenhead.

**D**EVON.—Required, immediately, an unqualified Assistant (lady or gentleman) for general Retail, including N.H.I. Dispensing and Photographic. Applicants kindly send photo if possible, and state fully experience and salary required. F. E. Battershill, Apothecaries' Hall, Barnstaple.

**F**LEET.—Qualified Manager; not over 40; married; good house; must be well up in all branches, including Window-dressing. State age, salary (indoors), references. Allen & Lloyd, Aldershot.

**I**PSWICH.—Young lady required for Counter, with good knowledge of Photographic Salesmanship. Apply, stating age, height, salary (outdoors), with experience, references, enclosing photo, to be returned. 157/11, Office of this Paper.

**L**IVERPOOL.—Smart Assistant, about 30, qualified or unqualified; able to take charge of brisk business when necessary. Full particulars (no enclosures) to K. G. MacLellan, Incorporated Accountant, 727 Tower Buildings, Water Street, Liverpool.

**L**ONDON.—Opening for young qualified Assistant desiring further experience, or good unqualified. State moderate salary and full particulars. Letters not answered in six days respectfully declined. Good Dispenser essential and ordinary Retail; industrial district. "M. A. B." (P.C.B. 54/29), Office of this Paper.

**L**ONDON, E.—Qualified Assistant wanted, quick N.H.I. Dispensing and Light Retail, in working-class district near City; must be willing, active and trustworthy; permanency. Apply, stating age, experience, and salary required, to "Lahore" (P.C.B. 54/31), Office of this Paper.

**L**ONDON, ILFORD.—Unqualified Assistant (Scotchman preferred) required for Counter work and Dispensing. If applying by letter please send photograph (if possible) and give full particulars of experience, age, and wages required, together with copies of references, etc., to Mr. A. Catto, c/o Catto, Ltd., 49 Cranbrook Road, Ilford, Essex.

**L**ONDON, N.—Assistant required, qualified, preferred, capable of taking charge small branch, Oakleigh Park district; close Sunday and mid-day Thursday; permanency. Full particulars, references, and salary required to "Chemist," 78 Normandy Avenue, High Barnet.

**L**ONDON, N.—Unqualified; outdoors. Personal interview if possible, or write, full particulars, age, etc., A. T. Honiatt & Son, 55, Junction Road, Highgate, N.19.

**L**ONDON, N.—Smart Junior or Improver wanted; outdoors; good Window-dresser essential, with some knowledge of Photographic and Dispensing; middle-class neighbourhood. State usual particulars and salary expected. 158/5, Office of this Paper.

**L**ONDON, N.E.—Unqualified Assistant required, working-class district; mainly N.H.I.; part-day or whole time. Apply by letter, stating full particulars, age, salary, references, etc., to Todd, 55 High Street, Homerton, E.9.

**L**ONDON, S.E.—Qualified Assistant wanted, lady or gentleman (outdoors), for quick cash Retail; no Sunday duty; close 1 o'clock Thursdays. State age, salary required, and full experience. Brooks', 509 New Cross Road, S.E.14.

**L**ONDON, S.E.—An energetic and up-to-date Photographic Salesman wanted; must have a thorough knowledge of Retail Photography and Wireless. Also a Manager capable of superintending a Developing and Printing Department, including enlarging and finishing. Only thoroughly practical men need apply. Brooks', 509 New Cross Road, S.E.14.

**L**ONDON, S.E.—Wanted, lady Assistant, Hall, about 25; Counter, Dispensing, Photographic, and Stock-keeping; must be smart and business-like; also part-time Assistant, half day Friday and all day Saturday; good references necessary. Apply, with full particulars of experience, etc., "Capable," 157/28, Office of this Paper.

**L**ONDON, S.W.—Counter Assistant urgently required with good knowledge of Surgical Appliances; experienced in fitting Trusses, Belts, etc. Applicants to state age, experience, and salary required. Personal interview necessary. Write in first instance Box 1103, Sells Advertising Offices, Fleet St., E.C.4.

**L**ONDON, S.W.—Qualified Junior Assistant wanted for Dispensing business. Apply, giving usual particulars, with salary required, to Bradley & Bourdas, Ltd., 48 Belgrave Road, S.W.1.

**L**ONDON, S.W.—Qualified Branch Manager wanted; must be a good Window-dresser and able to increase turnover; £5 week offered and 5 per cent. of all turnover above present rate; great scope for live man. State age, height, and full particulars of experience in first letter, to 159/260, Office of this Paper.

**L**ONDON, WEST-END (outdoors).—Assistant; reliable and capable; knowledge of French an advantage; must be a good Salesman; first-class references essential. State if qualified, age, experience, salary required, and, if possible, enclose photo (returnable). P.C.B. 54/26, Office of this Paper.

**M**ANCHESTER.—Junior Assistant wanted immediately (lady or gent.), for working-class Retail and N.H.I.; one only kept. Give particulars of age, height, experience, salary, etc., by letter only in first instance (photos will be returned), to Holland, Pharmacist, Hulme.

**M**ANCHESTER DISTRICT.—Manager wanted for branch immediately; must have first-class references, be energetic and original; young qualified man; married preferred. Apply in first instance to "A. A." 158/1, Office of this Paper.

**M**IDLANDS.—Vacancy occurs for elderly Chemist or qualified gentleman of indifferent health in small good-class business; duties nominal. Apply, with usual particulars and salary required (which must be small), to 158/4, Office of this Paper.

**N**EWPORT, MON.—Wanted, thoroughly reliable M.P.S.; knowledge of Photography; easy berth; suit elderly man. State full particulars and salary required to Dunn's Drug Stores, 30 Cardiff Road.

**RHONDDA VALLEY, SOUTH WALES.**—Young lady Assistant; capable Dispenser and Counter-hand; permanency. State age, salary required, and when at liberty. "Rhondda," 156/382, Office of this Paper.

**SUBURBAN, London, S.E.**—A young, qualified Assistant wanted. Please state age, height, when disengaged, particulars as to Dispensing experience, salary and appoint time for an interview. 159/9, Office of this Paper.

**A SMART** qualified Assistant (single) required for good-class business in Surrey (20 miles from London); knowledge of Photography essential; easy hours. Apply, stating salary required, etc., to 41/317 Office of this Paper.

**A PRIL 13.**—Live, qualified Manager to take full charge of branch with Rexall and Kodak Agencies; good house attached; opposite public gardens. Apply, with full particulars, references (photo if possible), and salary required, E. R. Dixon, West Hill House, Lincoln.

**A SSISTANT** wanted for Photographic Department of a Store business to take entire charge; must be experienced, a first-class Salesman and Window-dresser; preference given to applicant who could serve occasionally on the Drug Counter during rush hours. Apply, giving full particulars and salary expected, to 156/380, Office of this Paper.

**A SSISTANT**, age about 25, smart Window-dresser and Salesman, with thorough knowledge of pushing Kodak goods essential. Please give full particulars and salary required to Gerald Morris, The Rexall Pharmacy, 24 High Street, Rochester, Kent.

**A SSISTANT** wanted (male), of good appearance, for high-class Retail and Dispensing business; Photography. State salary (outdoors) and enclose photograph, to H. R. Browne, 1 Cornfield Road, Eastbourne.

**A SSISTANT** (unqualified), smart appearance, with good Retail and Dispensing experience and knowledge of Photography. Apply to 41/324, Office of this Paper.

**A SSISTANT**, London, S.W., single, not over 30, unqualified (outdoors), for quick cash business; must be a good Window-dresser and well up in Dispensing, Stock, etc. In reply please give full particulars as to experience, age, reference and salary (the latter would be quickly progressive on proof of ability) to 157/37, Office of this Paper.

**A SSISTANT** wanted for high-class Counter. Full particulars to Nathl. Smith & Co., 373 High Street, Cheltenham.

**B OTTS**, The Chemists, have vacancies for experienced unqualified Retail Chemist Assistants. Apply by letter to Boots Pure Drug Co., Ltd., Station Street, Nottingham.

**B RANCH** Manager required for good-class Pharmacy; must be of good address and well experienced in Photography and Window-dressing; living accommodation provided; progressive salary based on results. Apply to James S. Sumner, Chemist, Oxted.

**C OMPETENT** Assistant (qualified) for good-class Retail and Dispensing Business; Photography; capable Counterman and Window-dresser. Full particulars to Mauder Bros., Chemists and Opticians, Taunton.

**D ISPENSER** required at once. Apply by letter to Sayers & Barnes, Ltd., 199 Rushey Green, S.E.6. Letters not answered in four days respectively declined. (No stamps.)

**H ALL CERTIFICATE.**—Young lady with good Counter experience required as Dispenser for Hampton Court, Rickmansworth and Forest Gate districts. Apply, in writing, to "E. H." Parke's Drug Stores, Ltd., 65 Harwood Street, Chalk Farm, N.W.1.

**H ENRY HODDER & CO., LTD.**, have vacancy for smart Assistant accustomed to brisk Retail and Dispensing. Applicants should give full particulars of previous engagements and state age, salary required, references, etc. Address, Managing Director, Hodders, Ltd., 5 Nelson Street, Bristol.

**J UNIOR** Assistant wanted for a good-class Family and Dispensing Business. Apply, to Ekins & Fisher, Market Place, St. Albans.

**M ANAGER**, qualified, wanted at once for new branch opening March 31 in picturesque spot on banks of the Dee; good basic wage, commission, and share of profits; agreement; knowledge of Photography and Agricultural trade an advantage. Full particulars in first letter to L. Rowland & Co., Chemists, Wrexham.

**M ANAGER**; qualified; experienced; Photography; Salesmanship; good-class business; vacancies in S.E. and N. districts. Apply, with full particulars, to 41/323, Office of this Paper.

**M ANAGING** Assistant required; qualified; single preferred; about 30; market town; general good Retail and Family business, N.H.I. Dispensing. References and salary required, Maynard, Wymondham, Norfolk.

**M ESSRS. COOPER, SON & CO., LTD.**, require immediately qualified Assistants; previous West-End experience an advantage, though not essential; applicants must have good knowledge of Dispensing and be of gentlemanly appearance. Apply, with full particulars, stating age, salary, etc., to "A. J. B. C." 24 Sloane Street, London, S.W.1.

**Q UALIFIED** Manager; single preferred; excellent opportunity for a man anxious to make progress. State age, when at liberty, and salary required. "Q." 156/381, Office of this Paper.

**Q UALIFIED** Manager wanted, accustomed to high-class Retail, Dispensing and Photographic business; good Counterman and Window-dresser; liberal terms to suitable applicant. Please state age, experience, and usual personal details to Mr. Matthews, Chemist, Clifton, Bristol.

**Q UALIFIED MANAGER.**—A splendid opportunity occurs for a smart man capable of increasing an already well-established business situate in the Midlands; liberal commission on profits; married man preferred. 156/38, Office of this Paper.

**Q UALIFIED Assistant** wanted for high-class Dispensing Business; must be well trained, reliable and experienced Dispenser and Pharmacist. Cave, 52 Neville Street, Southport, Lancs.

**Q UALIFIED**, young Assistant for good Retail and Dispensing. Give full particulars age, height and salary required to Prebble & Bone, Chislehurst.

**Q UALIFIED** Assistant, immediately, to take sole charge with view to purchase on favourable terms, good-class light Dispensing business; lock-up shop. State terms and references to Mrs. T. W. Bolton, Woodhall Spa, Lincs.

**Q UALIFIED** Dispenser, with high-class experience, wanted at once. Full particulars age, references, salary, etc., in first instance, Hunt, Chemist, Winchester.

**Q UALIFIED Junior Assistant**; good Dispenser, capable Salesman. Apply with photo and references, stating salary required, Hockin, 5 Leves Road, Brighton.

**Q UALIFIED Assistant** required, lady or gentleman; must be good Dispenser and Book-keeper, experienced, and fully capable of taking frequent charge of seaside business. Kindly state age, experience, salary required. 157/40, Office of this Paper.

**Q UALIFIED Manager** for new business to be opened in North Acton, London, W.; living accommodation provided in flat above shop; it is essential that applicants should have undeniable references, possess a good knowledge of the Photographic trade, be a good Salesman, and smart Window-dresser; the position affords ample scope, and a man capable of building up a business will be well treated. Apply, with full particulars, to Thomas Marns, Chemist, Ealing, W.5.

**Q UALIFIED Counter Assistant**, age under 30; good Salesman essential; West-End and Continental experience an advantage. Apply "A. B. C." 41/327, Office of this Paper.

**Q UALIFIED Senior**, about 35, high-class Dispensing business; must be good organiser and methodical worker; good appearance and address; thoroughly conversant with modern business methods; two other Assistants kept; preference to man willing to take small share to ensure active and enthusiastic co-operation; London, W. 158/12, Office of this Paper.

**S MART** Branch Manager, qualified, for S.W. London; must have up-to-date business ideas, good Window-dresser and Salesman, also able to increase turnover; progressive position for right man. Full particulars, salary, age, experience, etc., to 159/26, Office of this Paper.

**U NQUALIFIED Assistant**, male; must be good Dispenser and Counter hand; knowledge of Photography. Apply, stating age, height, salary required, and experience. Densem & Co., High Street, Exeter. Applications unanswered in seven days respectfully declined.

**WANTED**, immediately qualified Manager for small branch; salary for commencement £3 10s. weekly; references. S. F. Jacques, 68 Murray Street, W. Hartlepool.

**WANTED**, immediately qualified Assistant to take charge of Dispensing counter and assist generally; must be about 25 years of age, of good appearance and a quick and accurate Dispenser. Kindly state salary required and all particulars in first instance. Apply, Manager, Fields, Chemist, Beverley.

**WANTED**, at once, smart Junior; good Counter hand, knowledge of Photography and D. & P. work; qualified or Hall certificate; must be good Dispenser. Apply, with full particulars, photo, etc., salary required, and references, to Charles Evans, Pharmacist, York Place, Brighton.

**WANTED**, a Junior Assistant, lady or gentleman; Counter experience essential. Apply personally or by letter, with full particulars, to Lloyd, 267 King's Road, Chelsea, London, S.W.3.

**WANTED**, immediately, qualified Assistant, 35 to 40 years of age, with good all-round experience and first-class references; knowledge of Kodak agency essential. Apply, stating age, height, experience and salary required (outdoor), Chas. H. Welton, 10 Stoney Road, Coventry.

**WANTED**, qualified Assistant. Apply Shadforth Prescription Service, Ltd., 49 King William Street, London, E.C.4.

**YOUNG** lady with Hall Certificate required as Dispenser in good-class suburban district. Apply 41/331, Office of this Paper.

## WHOLESALE.

**LONDON AND EASTERN COUNTIES AND SOUTH WALES.**—Representatives required, with connection amongst Chemists and Stores, for well-advertised product; must be keen Salesmen, able to show results and receive payment accordingly; excellent opportunity to men knowing how to sell; give sales record and full details. "Opportunity," Box 897, Smiths' Agency, Ltd., 100 Fleet Street, London, E.C.4.

**A** YOUNG man wanted, London, who can drive a car and to make himself generally useful in Retail business. In reply give full particulars as to age, reference, salary, and experience, 157/370, Office of this Paper.

**A**PPICATIONS for vacancy on the Representative Staff of Manufacturing House are invited from those having confidence in their ability to introduce high-class Pharmaceutical Products of proved value to Chemists, and able to interview members of the Medical Profession; every assistance and good commission given for orders received; territories vacant, South and East Coast, also Midlands. Write, with full particulars, to P.C.B. 54/22, Office of this Paper.

**C**APABLE young Salesman required to re-organise old-established small Wholesale; knowledge of small Packed Lines; preferably single, and able to drive; capital essential £1,000. Full particulars, age, experience, etc., to "Northerner," 157/10, Office of this Paper.

**C**OUNTER and Laboratory Hands, must be experienced, for London house. Give full details of experience. 41/320, Office of this Paper.

**F**IRST-CLASS Representatives required for London and provinces by very important Wholesale Perfumery House; good appearance, refined speech, and good education essential; preferably experienced in Perfumery trade; interesting future. Write 41/325, Office of this Paper.

**G**ENTLEMAN, already calling upon Chemists in the South of England; required to represent old-established firm of high-class Licorice Manufacturers on commission basis only; large and increasing business being done in other parts of country. 41/529, Office of this Paper.

**G**ENTLEMAN, young and good address, with a sound knowledge of the trade, required by Lancashire firm to call on Doctors and Chemists; must be willing to learn and fond of work. Reply, giving full particulars as to experience, age, salary required, to 159/25, Office of this Paper.

**O**LIVE Oil.—Large Importers of Olive Oils for edible and Pharmaceutical purposes (sole British Agents for leading Nice House) require Commission Representatives already calling on Chemists. 41/332, Office of this Paper.

**P**ACKER required for Drugs and Sundries, with good experience. Apply by letter, stating full particulars and wages required, to 41/350, Office of this Paper.

**Q**UALIFIED Chemist required by firm of Wholesale Manufacturing Druggists in Yorkshire (Galenicals, Ointments, etc.). State age, qualifications, experience, also salary. 41/319, Office of this Paper.

**R**EPRESENTATIVES wanted for Yorkshire and West of England, also Agent for East Anglia, to sell well-known line of Household and Toilet Soaps; connection already opened; must have had previous experience in selling to Grocers and Chemists. Write, stating experience, terms expected, and other details, to "Mitcham," c/o Liles Advertising Offices, 4-6 Ludgate Circus, London, E.C.4.

**R**EPRESENTATIVES required for the sale of Stomatol Tooth Cream, a high-class product; special territory allotted and a good commission offered; must have good connection amongst Chemists and first-class references. Apply Stomatol Co., 4-6 Ludgate Circus, E.C.4.

**R**EPRESENTATION WANTED.—German firm of the Chemical line, founded 1906, which produces pure Scientific Preparations only and which had a Representative in England until 1914, is looking out for a Solvent Representation which only represents pure Scientific Preparations of the Chemical and Pharmaceutical line, manufactured by first-class firms. Offers with references to be sent to M.V. 1618, c/o Rudolf Mosse, Munich.

**R**EQUIRED, Representative for provinces, those holding other commissions preferred, calling upon Chemists; goods well known; old-established firm of actual manufacturers. Reply "Confidential," 41/315, Office of this Paper.

**T**ABLET MAKER WANTED.—Lancashire firm of Manufacturing Chemists have vacancy for experienced Tablet Maker; preference given to one able to compile own Formulae. State age, wage and experience. 41/328, Office of this Paper.

**T**HE services of a young man of presentable address, and who has had good Office experience in the Export Drug Trade, are required by a London Wholesale House; one with an aptitude for calling upon customers and cultivating new business is sought; London area only. Send full particulars, age, and salary required, to 41/322, Office of this Paper.

**T**RAVELLER; must have sound connection amongst Chemists and Hairdressers in the Midlands. Write fully, in confidence, stating ground covered, salary, etc., required, when disengaged, to "K.979," Shelley's, 11 Crooked Lane, E.C.4.

**W**ANTED, Surgical Appliance Fitter; good address and appearance. Reply, stating age, experience, and salary required, to 41/316, Office of this Paper.

**W**ANTED, one or two good men for a large Wholesale Warehouse; a thorough knowledge of English and Foreign Proprietary Perfumery is essential. Apply by letter, stating salary required, age and previous experience, to Osborne, Garrett & Co., Ltd., 51-54 Frith-Street, W.1.

**W**ANTED, for North of England, young qualified Chemist experienced in the manufacture of Galenicals, Concentrated Mixtures, and Specialities for the Medical Profession. 158/25, Office of this Paper.

**W**ELL-KNOWN London Wholesale Patent House requires Invoice Clerk. Apply, stating age, experience, and salary required, to 41/312, Office of this Paper.

## [COLONIAL, INDIAN AND FOREIGN.]

**B**OULOGNE-SUR-MER.—On demande de suite Assistant Anglais, qualifié de préférence et parlant couramment le Français. Ecrire, en Français, Directeur, Grande Pharmacie de Paris, Boulogne-sur-Mer.

**I**NDIA.—A well-known London House, specialising in the manufacture of Tablets and Pills, invites correspondence from gentlemen at present calling on Retail Chemists in India, with a view to representation on a commission basis. Applications, giving full particulars in first letter as to territory, experience, etc., will be treated in strict confidence. "Statice," 40/298, Office of this Paper.

**I**NDIAN TRAVELLING REPRESENTATIVE.—Wholesale Druggists, well known in India and Ceylon, require services of gentleman with knowledge of the trade, of the Drug Bazaars, and of the vernacular; guaranteed minimum commission and expenses. Write, with full particulars as to experience, etc., to "T. Y.," c/o Streets, 6 Gracechurch Street, London, E.C.3.

**R**HODESIA.—For healthy town, qualified Assistant; Midland or North of England man preferred; single, under 30; good all-round experience; three years' agreement; second class passage paid out; salary first year £350, second year £360, third year £420. Apply, with recent photo and references, to P.C.B. 54/21, Office of this Paper.

**C**HIMIST, Dispensing, qualified, age 22-25, single, required for first-class British firm in the East; liberal salary and allowances to smart man with good-class Retail Dispensing and Counter experience; four years' agreement; passage paid. Write, stating full details of experience and present salary, to Box E. 339, Willing's, 119 Moorgate, E.C.2.

## SITUATIONS WANTED.

## RETAIL.

## [HOME.]

**A** COMPETENT Lady Assistant, M.P.S.; 25; 6 years' experience; whole or part-time; London only. 158/40, Office of this Paper.

**A**PPRENTICESHIP required for youth, 16; intelligent, well educated, trustworthy; some Laboratory experience. Particulars to H. E. Archer, 16 Lee Terrace, Blackheath, S.E.3.

**A**S experienced or Senior Assistant; 39, tall; free 29th; 20 years Dispensing, Photo and Window-dressing; well recommended; easy distance of Birmingham or London preferred, but not essential, for sound, permanent berth. Hodgkiss, 12 Darby Road, Folkestone.

**A**S Locum; qualified; experienced; many years Branch Manager; Photography; reliable; London. Allen, 55 Rosenau Road, Battersea, S.W.

**A**S Manager or Locum; considerable experience as both, and good references. "J. W. D.," 16 Heywood Road, Diss, Norfolk.

**A**S Locum or permanency; exceptional experience; good references; moderate terms; disengaged. "Chemist," 213 Brockley Road, S.E.4.

**A**S Assistant; unqualified; middle-aged; active; wide all-round experience (London, provinces); Photography; 20 years' reference; Brighton, Hove, Eastbourne, Worthing, Seaford. "E. U.," 54 Talbot Terrace, Lewes.

**A**SSISTANT; unqualified; first-class Dispensing experience; active; single; permanency; London only. "Jones," 13 Barclay Road, Walham Green, Fulham.

**A**SSISTANT, 21, seeks post; principally Counter work; 7 years' previous experience; good references. 157/8, Office of this Paper.

**A**SSISTANT, qualified; speaking French; best experience; London or suburbs; could arrange part-time. "T." 4 Kenilworth Court, Putney.

**A**SSISTANT, 26, married, with good knowledge of Dispensing, Counter work, and Photographic trade, seeks position; country preferred; good references. "Evans," Chandos, Knighton, Radnor.

**A**SSISTANT, with sound experience and accustomed to management, desires Locum or permanent engagement; well recommended, and terms moderate; unqualified. "H." 131 Mount View Road, N.4.

**A**SSISTANT; 31; unqualified; married; first-class Counterwoman and Dispenser; 14 years' experience in all branches; Window-dressing, Photography; capable taking charge; interview preferred. "Statim," 102 Lansdowne Road, Aylestone Park, Leicester.

**C**OMPETENT Senior, 36; good all-round experience; married; unqualified; Photography; modern Window-dressing; Salesmanship. 62 Trinity Road, Wimbledon, S.W.19.

**D**ISENGAGED for the 31st; male Pharmacist; experienced; permanency or Locum; moderate salary. 158/22, Office of this Paper.

**D**ISPENSER; sole charge of Hospital Dispensary for last 16 months; Book-keeping Certificate; free now. Miss Mann, Clevedale, Warwick.

**D**ISPENSER, male, 22, Hall, 6 years' experience, requires post, Doctor or Institution. Gillham, 95 Ophir Road, Portsmouth.

**I**SLER OF MAN.—Locum, season; permanency; disengaged June 23; qualified; ex-Serviceman; aged 30; height 5 ft. 9 in.; absolutely reliable, good appearance and address; excellent references; seaside experience; Photography. 154/6, Office of this Paper.

**J**UNIOR or Improver, 21; disengaged; all-round experience; reliable and willing; smart appearance; excellent references. "H." 8 Hughenden Road, Hammersmith, W.6.

**L**ADY Assistant; unqualified; nearly 8 years' experience, Dispensing Counter, etc.; London. "D. H." 34 Golders Way, Golders Green.

**L**ADY Dispenser (Hall) requires post, Doctor, Hospital or Institution; nearly 3 years' experience. Allanson, Cavan Road, Redbourn, Herts.

**L**ADY Dispenser (Hall) desires post, Doctor, Hospital, Institution; 6 years' experience; Dewsbury district preferred. Anty, "Louvain," Northfields, Dewsbury.

**L**ADY Dispenser desires post, Doctor or Chemist, Book-keeping and Typing, in London. 38 Sinclair Road, W.14.

**L**ADY Assistant requires post with Chemist; 7 years' experience with one firm; Counter and Dispensing. Apply E. Williams, 98 Severn Road, Weston-super-Mare.

**L**OCUM; thoroughly reliable, experienced in every branch, including Optics; good appearance, smart, tactful; disengaged; terms reasonable. 157/7, Office of this Paper.

**L**OCUM; qualified; first-class references; wide experience; at liberty. Dodd, Felley Priory, Jacksdale, Notts.

**L**OCUM; first-class references; qualified; at liberty. Address "D." Messrs. Southall Bros. & Barclay, Priory, Birmingham.

**L**OCUM; unqualified; age 23; March 31 for three weeks. Neal, 28 High Street, Tonbridge.

**L**OCUM, thoroughly competent, reliable, obliging, industrious; highly recommended; terms reasonable; town, country; disengaged. "Aspirin," 239 Camberwell New Road, S.E.5.

**L**OCUM; tall, well educated, single, unregistered; 20 years' London and provincial experience; disengaged. "Lenoil," 157/23, Office of this Paper.

**M**ANAGER; middle-aged; experienced; energetic; reliable; preferably where scope for increase; without Dispensing; unqualified; good Salesman and references. Address particulars, "Statim," 153/40, Office of this Paper.

**M**ANAGER; 38; married; experienced all branches; careful buyer; keen, courteous and obliging; well recommended; London or near. State offer, with and without living accommodation. "Betax," 157/5, Office of this Paper.

**M**ANAGER or Assistant; qualified; knowledge of all branches; keen business man; undeniable references; would enter Wholesale; free April. 158/11, Office of this Paper.

**M**ANAGER; qualified; married; high-class experience in all branches; Photography; several years managing experience; used to control and buying; conscientious and obliging; living accommodation preferred; London or near. 157/36, Office of this Paper.

**M.P.S.**, 26, excellent references, good experience, at present engaged, desires post as Manager or Assistant; Staffs. preferred. Apply 156/10, Office of this Paper.

**M.P.S.**, disengaged; speaks French and German fluently; London preferred. S. Humphreys, 1 Belsize Avenue, London, N.W.3.

**M.P.S.**—Experienced; desires immediately position in good-class Pharmacy, as Manager or qualified Assistant; London only; interview any time. 158/70, Office of this Paper.

**M.P.S.**, lady, with a little Retail experience, desires position as Counter Assistant in a brisk, good-class business where more Counter knowledge could be gained; moderate salary. "W. W." 7 Sumburgh Road, Clapham Common.

**M.P.S.**, with long experience as manager, requires similar post in London or Home Counties; good organiser and Dispenser; general knowledge of Photo.; careful buyer and accustomed to control. Full details, with salary offered, to "D. O. C." 157/34, Office of this Paper.

**M.P.S.**, disengaged shortly, requires berth where confidence and initiation are required; experienced in all branches. 159/15, Office of this Paper.

**N**OTTINGHAM OR DISTRICT.—Assistant, 21; tall; excellent reference; 5 years' Counter and Dispensing (including N.H.I.) experience, both London and country. "A. L. R." c/o 42 Wood Street, Newark, Notts.

**N**OTTINGHAM, or near; unqualified Assistant; 24; married; 2 years' West-End experience in Counter; Dispensing and Photography; progressive salary; excellent references. 160/16, Office of this Paper.

**P**ART-TIME, mornings or evenings and Saturday and Sunday evenings; used to quick Counter; good references; N. or N.W. 159/11, Office of this Paper.

**P**ERMANENCY, temporary; wide varied experience; as Locum; Manager; married; disengaged when required. "Chemicus," 112 Lloyd Street, Greenheys, Manchester.

**Q**UALIFIED lady, 22; 5 years' good Dispensing experience; Photography, Window-dressing; excellent references; Midlands preferred. 157/3, Office of this Paper.

**Q**UALIFIED; elderly; Hospital or Institution; 11 years' Hospital experience, "Chelsea," 22 Bramerton Street, Chelsea, S.W.5.

**Q**UALIFIED lady; 11 years' experience, Dispensing, Photography, Window-dressing; good Saleswoman; London essential. "Chemist," 36 York Street, Baker Street.

**Q**UALIFIED, Manager; married; permanency with living accommodation preferred, or temporary. "Statim," 104 Gt. Clowes Street, Lower Broughton, Manchester.

**Q**UALIFIED member desires change and permanency in Lancashire as Senior or Manager; present post has sharp Counter work, plenty of Dispensing, with Kodak and Rexall Agencies; 30; 5 ft. 10 in. Please write in first instance to 159/17, Office of this Paper.

**Q**UALIFIED, 45, desires post as Cover; part-time or relief; Prescribing, Dispensing, Photography and Optics. "Statim," 158/29, Office of this Paper.

**Q**UALIFIED; 7½ years' good all-round experience; tall; keen and energetic; good refs. and address; disengaged. "Aspirin," 159/28, Office of this Paper.

**S**TUDENT, 21, desires full-time berth; 4 years' experience; good references; free after April Examination; Dispensing preferred. Brinley Edwards, 7 Stockwell Park Road, London, S.W.9.

**S**UPERINTENDENT, Dispenser or Cover, 49; single; £2 10s. or mutual terms. "Chemist," 23 Welclose Mount, Blackman Lane, Leeds.

**U**NQUALIFIED, 40; tall; courteous; Salesmanship; 22 years' experience; abstainer; Surgical Fitter; married; employed; offers; permanency Midlands, other; house essential; Retail, Wholesale. 156/8, Office of this Paper.

**U**NQUALIFIED, experienced, seeks situation as Assistant or Manager of Drug Store; would consider purchase of same; good reference. P.C.B., 54/32, Office of this Paper.

**U**NQUALIFIED, 31; good Salesman; practical Photography; high-class experience; reliable; excellent references. Findlay, 62 Lillie Road, West Brompton.

**U**NQUALIFIED, well trained, capable and willing, very good references. Window-dressing and Photography, shortly desires post. Write 157/20, Office of this Paper.

**WANTED.** Junior position for youth in Retail Optics; small remuneration for experience. 21a Westdown Road, Catford, S.E.6.

**WANTED.** by qualified Chemist, position as Manager, preferably with view to succession; thoroughly experienced (10 years managing); good Window-dresser. Replies to 159/39, Office of this Paper.

### WHOLESALE.

**A**DVERTISER, calling upon Wholesalers and Institutions throughout the country for leading Surgical Dressings House, wishes to represent an additional firm; established connection, highest references. 41/321, Office of this Paper.

**A**SSISTANT Chemist, 23; 3 years' technical training, London University; B.Sc. (Chemistry); willing to take any post in keeping with qualifications. M.L. 5673/23, Office of this Paper.

**E**FFICIENT Representative, with excellent sales record and first-class connection, is open to represent House of repute in North; returns guaranteed. Full particulars, in confidence, to "Salesman," 159/13, Office of this Paper.

**E**X-OFFICER, A.I.C., 43; married; educated Public School; good knowledge French; one year's experience Assistant to Analytical Chemist, eight years Manufacturing Chemist; willing to take any post. M.L. 5977/22, Office of this Paper.

**E**X-OFFICER, 30, single, educated Public School, 3 years University, Intermediate Physics and Chemistry, some knowledge French, 4 years' Laboratory experience, good knowledge Electrical Engineering, desires post, preferably in Chemical Works or Oil Refinery. M.L. 34284, Office of this Paper.

**E**XPERIENCED Traveller, smart appearance, good business getter of proved ability, would represent house of repute, Toilet or Proprietary. "Spade Work" (P.C.B. 54/15), Office of this Paper.

**M.P.S.**, etc., with accurate Retail knowledge of requirements of the Drug, Sundry, Photographic, Perfumery, Toilet Requisite and allied trades, is open to negotiate with good Houses as Representative (London area only) for any or all of above lines. Replies, with particulars, to "Progressive," 158/7, Office of this Paper.

**M.S.** (C. (Hons.), B.Sc. (1900), 44, single, desires Chemical, Metallurgical or Commercial post; experience as Chief Chemist and Manager of Chemical Manufacturing Co.; also as Chief Chemist and Metallurgist in Metal Co.; sound experience all branches; is willing to take any post suitable to qualifications. M.L. 71755, Office of this Paper.

**R**EPRESENTATIVE, open for engagement, offers live connection Lancashire, Cheshire, North Wales, Isle of Man, Roberts, 55 Brownhill Road, Blackburn.

**T**RAVELLER; experienced young man, 21, seeks position as Traveller or Traveller's Assistant; excellent knowledge of all Chemists; London, suburbs and 70 mile radius. "K." 32 Wightman Road, Harringay, N.4.

**W**ELL-EDUCATED, young, qualified man, with 9 years' sound Retail and Wholesale experience, desires progressive post with good firm at home or abroad, preferably as Representative; undeniably references. 156/11, Office of this Paper.

**W**ORKS OR LAB.—Ex-Officer, 33; married; educated Public School, University, B.A. (Nat. Science Research), Cantab.; experience in Research work and demonstrating, also as Manager of Chemical Extraction Plant, steam and electric machinery; conversant Commercial Book-keeping. M.L. 1826/22, Office of this Paper.

### COLONIAL, INDIAN AND FOREIGN.

**P**HARMACIST, returning South Africa May-June, seeks position Manager; last post Manager, Transvaal, 6 years, and resigned for active service German East Africa; temperate, ambitious, speaks Dutch; excellent references, including recommendation leading export Chemists; first-class Salesman and thorough all-round Pharmacist; present position three years, during which sales doubled; post with rapid prospects preferred; good appearance and address. 157/39, Office of this Paper.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

### MISCELLANEOUS.

10s. for 60 words; 1s. for every additional 10 words or less.

**M**CADAM & TUCKNELL, Stock and Share Brokers, Bank Chambers, Blackheath, S.E.5. Established 1898. Telephone: 81 Lee Green. Shares for Sale, free of commission (subject):—

**H**IRST, BROOKE & HIRST, LTD.—100 £5 fully paid 5% Preference, offers wanted for whole or part. 40 Allenbury "B" 6% Pfs., 20s. 6d., c.d.; 35 "C" Pfs., 20s. 4d., c.d.; 1,000 Brit. Photo Industries Pfs., 5s. 10d.; 500 British Celanese Pfs., 10s. 4d.; 55 W. J. Bush £5 fy. pd. 5% Pfs., 65s. 9d., c.d.; 395 Ilford 6% Pfs., 18s. 7d.; 400 G. B. Kent 5% Pfs., 14s. 7d.; 600 Tower Tea Pfs., 7s. 4d.; 828 Yeatman Ord., 12s. 10d., c.d. Wanted (subject):—Aldenbury; Idris Debenture £63%; Wright, Layman.

**S**ECOND-HAND CHEMISTS' FITTINGS.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.2.

**C**HEMIST'S Fittings (second-hand).—Ranges of Drug Drawers, Shelving, All Glass Counters, Centre Cases, Window Fittings of all descriptions. D. MATTHEWS & SON, Chemist Fitters, 14/16, Manchester Street, Liverpool.

**C**OMPLETE SET OF SHOP FITTINGS, suit beginner or branch.—14 ft. handsome Drug Fixture, 6 ft. massive Wall Case, 12 ft. Glass Front Counter with drawers at back, 6 ft. Dispensing Screen with large mirror centre, Perfume Case and Desk, two Plate Glass Counter Cases, 4 ft. all-glass Toilet Counter; £150 the lot. PHILIP JOSEPHS & SONS, LTD., Shop Fitters, 93 Old Street, London, E.C.1.

**L**IMITED COMPANY FORMATION.—Before placing your Company in other hands, get my quotation. I specialise in Chemist and tradesmen private companies and quote inclusive charge; no extras. A. B. Slack, 180 Garston Old Road, Liverpool.

**S**TOCK and Trade Utensils with Formula of Medicinal Salts for Sale. Communicate with Alspa, Ltd., Box 435, Frost Smith Adv. Service, 66 Finsbury Pavement, E.C.2.

### EXCHANGE COLUMN.

2d. per word: Minimum 2s.

### FOR DISPOSAL.

**P**RISMATIC BINOCULARS, x 8; as new; with leather case; bargain, 35s. "O. P." 56 Arlington Road, Surbiton.

**500 UNITS INSULIN, A. & H.**, November, 10s. the lot. Boon, Chemist, Wallsend.

**TO DENTISTS.**—A good Dental Chair and 12 Forceps; Maw's & Ash's; as new, in leather case. "Chemist," 77 Carlton Vale, N.W.6.

"**ALL KODAK SUPPLIES**" FLAG, nine feet by six upright; yellow and black; clean, no wear or holes; 25s., post free. Cesar, Chemist, Southampton.

**BENT GLASS UPRIGHT PERFUME CASE**; mirror, 4 glass shelves. £7 10s.; Clark's Shop Syphon Stove, 30s. Fuge, 28 Abbeville Road, Clapham.

**NINE TOOTH FORCEPS**, 4 plated, 5 steel (Maw's), in kit; 1 doz. 25s. Quinin Salicylate Tabs., 5 gr. (Cox). Offers. Masou, Titchfield, Fareham.

**WHAT OFFERS?**—1 oz. Otto Roses; 1 oz. Essence de Neroli Pétale; 1 1914 P.B. "A. J.," 3 Market Street, Highbridge, Somerset.

### WANTED.

**D**OBSON'S BLACK LEG DRINKS; cheap. "Lamb's Teat," 156/37, Office of this Paper.

**P**HARMACEUTICAL Books wanted; send priced list. Gower, Bookseller, 41 Voltaire Road, Clapham.

**C**HEMIST AND DRUGGIST, April 7, 1923, to present date. State price. Starkey, Chemist, Antrim, Ireland.

**C**OMPLETE SET of Chemist's Fixtures and Fittings and Utensils. J. H. Meadowcroft, 15 Queen's Terrace, Morecambe.

**C**HEMISTS' "MEDICAL DICTIONARY" and Chemists' "Dictionary of Synonyms." State price. "Kurexa," 259 Seven Sisters Road, N.4.

**B**EGINNER.—Second-hand Chem. and Counter Balance; Shop-rounds, N. & W.M. Oint. Jars; 2, 3, 5 G. Pear S. Display Carboys; Window Fittings; whole or part; lowest terms. "F. W." Toxteth, 183 Mill Street, Liverpool.



# *A Call to Buyers! Large Buyers!*

Our vast experience in the economical manufacture of Galenicals on a huge Scale, places us in an unassailable position as regards prices for :

**EMULSIONS, SYRUPS, TINCTURES,**  
**ELIXIRS, TABLETS, CAPSULES,**  
**SUPPOSITORIES, AND OTHER GALENICALS.**

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*Samples and Prices on Application*



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## ACME of CONVENIENCE

An Instantly Popular Innovation.



### FACE POWDER AND ROUGE IN ONE VANITY BOX

THE above Gold-Finished Vanity Box is now available with one compartment containing solid Face Powder ("POWDRETTE") and the other Solid Rouge. 3 inches in length, it is fitted with large mirror and two dainty Lambskin Puffs.

Both Powder and Rouge are scented with "The Heart of a Rose" perfume and the former is made in two tints, Rachel and Naturelle.

Retail 4/6 (usual terms.)





